THE LIGHTING SPECIALISTS

3 Decades of Quality British Manufacturing
Introduction

Since being established in 1982, Orbik Electronics Limited has always been at the forefront of innovation and design of emergency lighting & fire detection equipment and is now one of the largest independent manufacturers of this type of equipment in the world. Based at Aldridge in the West Midlands, our four-acre purpose built facility employs nearly 200 people engaged in the design and manufacture of emergency lighting and fire detection equipment and is registered to and audited by BSI for their ISO9001/2008 quality system.

Throughout our long history, Orbik has been an enthusiastic supporter of improving quality standards within the industry and today has over 300 products approved by BSI, proudly carrying the Kite Mark symbol, indicating our continuing compliance for quality, safety and performance. The company are represented on several leading industry standard institutions and can provide Continuous Professional Development approved seminars on most aspects of emergency lighting and the application standards.

To ensure consistent product quality, and to maintain a competitive advantage, Orbik has invested heavily in automatic assembly processes, allowing us to offer world class standards of service to all customers, which has been instrumental in developing substantial sales growth on every continent.

By identifying and responding to individual customer’s specific requirements, Orbik have become the first choice supplier to many leading international lighting companies, electrical contractors, local authorities and consultants for their emergency control gear, emergency luminaires, central battery, static inverter systems and fire detection systems.

Orbik has a policy of constant product improvement and therefore reserve the right to modify specifications without prior notice. All details and specifications shown within this brochure are deemed correct at the time of print.
Mission Statement

At Orbik, we are dedicated to providing our customers with the highest quality products and services.

Through continuous investment in new products, staff development and the latest technology we are committed to offering a professional business solution to a rapidly expanding and demanding market place.

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Facilities

Exhibition and Training Facilities

Orbik’s large training suite accommodates up to 30 delegates for seminars and training sessions for both in-house and client training days. The suite is cleverly linked to the large exhibition and demonstration area where clients can see lighting and fire products, both on display and in working conditions, enabling them to gain a better understanding of our product range. Orbik have the experience and expertise to provide the answer for all your training needs both in the fields of fire, lighting and DDA. We believe that we set the standards, rather than follow the competition, with our accreditations and innovative thinking. We design and build our products at our factory in the West Midlands, and are proud to have been doing this for over 30 years.

Our courses are delivered by experts in their fields and can be designed to suit your needs.

- Legislation
- How to use our products to your best advantage
- Fire alarm design training
- Emergency lighting training
- Disability design training, covering all our ranges
- Commissioning, system set, testing and fault finding
NICEIC Training is focused on ‘energising skills’ by providing the training needed to face the challenges of the electrical industry. Our courses are developed by leading industry experts with a wealth of experience which helps ensure our training provides clear, up-to-date and above all relevant guidance. We offer a complete range of training in electrical, renewable, gas, water, oil and health & safety courses.

NICEIC Training has been offering fire alarm and emergency lighting courses for over 8 years. The courses are extremely popular with the contractors and have been delivered by one of our qualified design engineers from ORBIK. This partnership has grown significantly over the last few years and we continue looking to provide a better service to our customers. For a complete range of training courses available, please visit www.niceic.com.

CPD stands for ‘Continuing Personal or Professional Development’ and is defined as: ‘A commitment to structured skills enhancement and personal or professional competence’.

CPD is needed due to the rapid development in new technologies which has led to radical changes in the design and construction processes in an ever-changing construction industry and build environment. In addition, materials, technologies and systems are constantly improving, often overtaking long established practices, and forms of construction learnt during initial training and, in many areas, these are often overruled by new legislation.

How do I obtain CPD?

• Events - lectures, seminars, conference and technical visits
• Courses - short residential course, evening courses, degree or diploma courses
• Distance learning - CPD packages, correspondence courses, Open University, etc
• Personal study - properly directed aims with measurable outcomes (e.g. producing a book or technical article)
• Professional affairs - voluntary work for your profession. Reviewing technical books for Building Engineer. Participation in working parties, reports, relevant committee meetings of Professional Bodies
• Personal Development - Any activity which is intended to help the member to be a more effective person.
Luminaire Overview

Arc p12
IP65 compact bulkhead luminaire

Arriled p29
Low profile LED panel

Baleni p64
IP65 LED floodlight

Bewdley p13
Robust IP65 bulkhead luminaire

Cadiz p14
Practical bulkhead for interior use

Calabor p41
Recessed luminaire or exit sign

Chella p42
Fully recessed luminaire/exit sign

Dalby p15
Low profile luminaire or exit sign

Dual p43
Fire-rated downlight range

Dyode p44
Unique recessed LED luminaire

Ecos p51
IP65 robust luminaire

Eden p16
IP65 compact bulkhead

Elled p45
Distinctive LED luminaire

Geneva p46
Stylish recessed luminaire/exit sign

Holt p52
Rugged IP65 square luminaire

Idro p53
Circular die-cast IP65 luminaire

Iona p54
Square die-cast IP65 luminaire

Ipstones p30/31
IP65 non-corrosive luminaire

Jaro p65
Robust IP65 wall-pack luminaire

Kandel p55
Circular IP54 luminaire

Kehled p32
LED linear luminaire

Kerriled p56
IP65 circular drum luminaire

Larino p57
Elegant circular luminaire

Lavaine p58
Classically styled luminaire

Layos p33
Recessed modular luminaire
Lighting Design

Free of charge lighting design service

Lighting Design by Orbik

- A free and comprehensive service to provide a complete lighting design solution
- Designs are completed to meet the requirements of the latest British and European standards
- Designs can be tailored to meet your own requirements using dedicated luminaires from the Orbik range or using other luminaire data when used in conjunction with Orbik emergency control gear
- Full UK mainland coverage for site surveys
- Quick and efficient turnaround on lighting schemes
- A comprehensive range of Orbik products are available for download in industry recognised Lumdat format, including supporting data sheets, via our website www.orbik.co.uk

Overview

Creating the right lighting for any space can enhance both the appearance of that space and have positive effects upon the people occupying the space. However it is also of the utmost importance to ensure the safety of those who occupy this space, by providing backup lighting in the case of an emergency. Orbik are able to offer a full lighting design service, which can satisfy the needs of both.

Every lighting project requires correct and careful planning; from defining specific customer needs, through the assessment of building regulations, to the lighting design scheme being undertaken. Orbik’s Lighting Industry Association-trained technical staff and area sales team will provide expert assistance, advice and solutions to even the most complex lighting requirements.

Initial Criteria

At the early stages of the design enquiry, Orbik will analyse the project to determine project dimensions, positioning of fixed items, positioning of entrances/exits and whether the client has any specific needs.

Project Design

The criteria is assessed and the characteristics of the installation are taken into account when our technical staff mark drawings with the lighting scheme. Once the design is complete the results can be compiled into an impressive structured report, table results and 3D computer generated visualisations.

Technical Support

For any enquiries relating to central battery units, please contact our technical department who will be able to offer advice and expertise on your application.
Lighting requirements

When luminaires have been sited to cover the locations above, additional luminaires may be required to ensure minimum lighting levels are achieved.

Escape route corridors etc: 1 lux minimum on the centre line of the escape route.

Open Areas: 0.5 lux minimum in the central core to within 0.5m of the walls.

To provide illumination of escape routes.

Install within 2 metres of escape route junctions.

Install within 2 metres horizontal distance of a change of direction in an escape route.

Install within 2 metres horizontal distance of change in floor level or stairs (each tread to receive direct light).

Install externally within 2 metres horizontal distance of any final exits. Please note that sufficient light will be needed to muster a roll call.

Fire alarms, first aid points and fire-fighting equipment, install within 2 metres horizontal distance.

Should not be used as an escape route, but requires the same illumination to protect users on it when the supply fails.

Install in all toilets exceeding 8m² area or where natural light is not present.

To provide emergency illuminations in all lifts.

Motor generator, control and plant rooms for essential and safety services.

Open rooms either with a particular hazard, an escape route passing through or larger than 60m².

Areas of high risk should be illuminated to 10% of normal lighting or 15 lux, whichever is greater.

Exit signs – Signs should apply to the European Signs Directive and be either back illuminated or have an emergency luminaire within 2m of horizontal height. Signs should be of the same format throughout the building.
New Products
Emergency.

A range of emergency luminaires to suit a wide range of applications.
Arc

IP65 compact bulkhead luminaire

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Luminens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR8</td>
<td>8 Watt mains</td>
<td>400</td>
<td>0.90kg</td>
</tr>
<tr>
<td>AR2X8</td>
<td>2 x 8 Watt mains</td>
<td>800</td>
<td>0.90kg</td>
</tr>
<tr>
<td>AR11</td>
<td>11 Watt TC-S mains</td>
<td>900</td>
<td>0.90kg</td>
</tr>
<tr>
<td>AR/LED</td>
<td>15 x mains LED</td>
<td>360</td>
<td>0.90kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Luminens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR8/NM3/E</td>
<td>8W NM3 economy output</td>
<td>80</td>
<td>1.20Kg</td>
</tr>
<tr>
<td>AR8/NM3</td>
<td>8W NM3 standard output</td>
<td>120</td>
<td>1.20Kg</td>
</tr>
<tr>
<td>AR8/NM3/H</td>
<td>8W NM3 high output</td>
<td>180</td>
<td>1.20Kg</td>
</tr>
<tr>
<td>AR8/M3/E</td>
<td>8W M3 economy output</td>
<td>80</td>
<td>1.45Kg</td>
</tr>
<tr>
<td>AR8/M3</td>
<td>8W M3 standard output</td>
<td>120</td>
<td>1.45Kg</td>
</tr>
<tr>
<td>AR8/M3/H</td>
<td>8W M3 high output</td>
<td>180</td>
<td>1.45Kg</td>
</tr>
<tr>
<td>AR2X8/NM3</td>
<td>2 x 8W NM3 standard output</td>
<td>150</td>
<td>1.70Kg</td>
</tr>
<tr>
<td>AR2X8/NM3/H</td>
<td>2 x 8W NM3 high output</td>
<td>250</td>
<td>1.70Kg</td>
</tr>
<tr>
<td>AR/LED/M3</td>
<td>LED NM3/M3</td>
<td>125</td>
<td>1.20Kg</td>
</tr>
<tr>
<td>AR/LED/C3</td>
<td>15 x mains LED/5 x emergency LED</td>
<td>125</td>
<td>1.20Kg</td>
</tr>
</tbody>
</table>

Slave Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Luminens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR8/4D</td>
<td>8 Watt slave bulkhead</td>
<td>275</td>
<td>0.85Kg</td>
</tr>
<tr>
<td>AR/LED/4D</td>
<td>LED slave bulkhead</td>
<td>120</td>
<td>1.20Kg</td>
</tr>
</tbody>
</table>

Options

Add suffix to catalogue number:
- /AR/WH White semi-recessing kit
- /AD Intelligent addressable luminaire (non-maintained versions only)
- /DALI DALI emergency control gear
- /HF High frequency ballast
- /O Opal Diffuser
- /SAL1 Self-adhesive legend kit
- /ST Digital self-test luminaire (non-maintained versions only)
- /TS Push-to-test switch
- /VR Anti-tamper screws

Features

- Soft arc linear lens diffuser designed to provide maximum spacings between emergency luminaires
- Flame retardant polycarbonate enclosure and screw-fixing diffuser located with brass threaded inserts
- Hinged steel gear tray, centre rear besa entry and 20mm conduit knockouts at each end for ease of installation
- Can be fitted with a self-adhesive legend kit to create an exit sign
- Non-maintained versions are BSI Kitemarked
- Ideal for use in corridors, exits and escape routes

Specifications

Body
Flame retardant polycarbonate with white finish

Diffuser
Flame retardant polycarbonate as standard (opal polycarbonate diffuser available as an option)

Gear Tray
Sheet steel gear tray

Charger LED
Constant current with green LED for mains healthy and connected battery

Lamps
8 Watt T5 fluorescent or 11 Watt TC-S compact fluorescent lamp (AR11 only) are supplied complete with the luminaire

LED’s
Mains - 15 x 0.2W high lumen/watt LED (125 lumens per watt)
Emergency - 5 x 0.2W high lumen/watt LED (125 lumens per watt)

Dimensions

Luminaire Dimensions
Length 350mm x Width 108mm x Depth 80mm

Cut-Out Dimensions
Length 330mm x Width 90mm (when used with AR/WH semi-recessing kit)

Viewing Distance
18 Metres (when supplied with SAL1 legend kit)

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

* Third party approval applied for.

For fluorescent versions replace # with AC/DC system Voltage: 24, 50, 110 or 230 Volts; for LED versions replace # with AC/DC system Voltage: 110 or 230 Volts.
**Features**
- Tough, flame retardant polycarbonate housing supplied with a white base and clear fresnel lens as standard
- Wide range of options available to suit specific requirements
- Screw-fixing diffuser located with brass threaded inserts
- Hinged steel gear tray, rear centre besa drill starts and 20mm end entries
- Can be fitted with a self-adhesive legend kit to create an exit sign
- BSI Kitemark on many products
- Ideal for use in corridors, exits and escape routes

**Options**
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/BE/WH White semi-recessing kit
/BK Black base
/DALI DALI emergency control gear
/HF High frequency ballast
/IM IP65 metal base
/O Opal fresnel diffuser
/SAL2 Self-adhesive legend kit
/ST Digital self-test luminaire
/TS Push-to-test switch
/VR Anti-tamper screws

**Specification**

**Body**
Flame retardant polycarbonate with white finish (black base available as an option)

**Diffuser**
Clear fresnel flame retardant polycarbonate as standard (opal fresnel flame retardant polycarbonate diffuser available as an option)

**Gear Tray**
Sheet steel gear tray

**Charger LED**
Constant current with green LED for mains healthy and connected battery

**Lamps**
8 Watt T5 fluorescent, 11 Watt TC-S or 18W TC-L compact fluorescent lamp are supplied complete with the luminaire

**LED's**
Mains - 15 x 0.2W high lumen/watt LED (125 lumens per watt)
Emergency - 5 x 0.2W high lumen/watt LED (125 lumens per watt)

**Dimensions**

**Luminaire Dimensions**
Length 370mm x Width 140mm x Depth 105mm

**Cut-Out Dimensions**
Length 365mm x Width 105mm (when used with BE/WH semi-recessing kit)

**Viewing Distance**
22 Metres (when supplied with SAL2 legend kit)

**Technical Information**
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbitk.co.uk

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**Mains Luminaires**

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE1X8</td>
<td>8 Watt mains</td>
<td>400</td>
<td>1.20Kg</td>
</tr>
<tr>
<td>BE2X8</td>
<td>2 x 8 Watt mains</td>
<td>800</td>
<td>1.25Kg</td>
</tr>
<tr>
<td>BE11</td>
<td>11 Watt TC-S mains</td>
<td>900</td>
<td>1.25Kg</td>
</tr>
<tr>
<td>BE2X11</td>
<td>2 x 11 Watt TC-S mains</td>
<td>1800</td>
<td>1.35Kg</td>
</tr>
<tr>
<td>BE/LED</td>
<td>LED mains</td>
<td>360</td>
<td>1.35Kg</td>
</tr>
</tbody>
</table>

**Emergency Luminaires**

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE8/NM3/E</td>
<td>8W NM3 economy output</td>
<td>80</td>
<td>1.70Kg</td>
</tr>
<tr>
<td>BE8/NM3</td>
<td>8W NM3 standard output</td>
<td>120</td>
<td>1.70Kg</td>
</tr>
<tr>
<td>BE8/NM3/H</td>
<td>8W NM3 high output</td>
<td>180</td>
<td>1.70Kg</td>
</tr>
<tr>
<td>BE8/M3/E</td>
<td>8W M3 economy output</td>
<td>80</td>
<td>1.90Kg</td>
</tr>
<tr>
<td>BE8/M3</td>
<td>8W M3 standard output</td>
<td>120</td>
<td>1.90Kg</td>
</tr>
<tr>
<td>BE8/M3/H</td>
<td>8W M3 high output</td>
<td>180</td>
<td>1.90Kg</td>
</tr>
<tr>
<td>BE8/C3</td>
<td>8W C3 (1 lamp mains + 1 lamp NM3)</td>
<td>120</td>
<td>1.90Kg</td>
</tr>
<tr>
<td>BE2X8/NM3/E</td>
<td>2 x 8W NM3 economy output</td>
<td>150</td>
<td>2.20Kg</td>
</tr>
<tr>
<td>BE2X8/NM3</td>
<td>2 x 8W NM3 standard output</td>
<td>250</td>
<td>2.20Kg</td>
</tr>
<tr>
<td>BE/LED/M3</td>
<td>LED NM3/M3</td>
<td>125</td>
<td>1.40Kg</td>
</tr>
<tr>
<td>BE/LED/C3</td>
<td>15 x mains LEDs x emergency LED</td>
<td>125</td>
<td>1.90Kg</td>
</tr>
</tbody>
</table>

**Slave Luminaires**

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE8/#D</td>
<td>8 Watt slave bulkhead</td>
<td>275</td>
<td>1.00Kg</td>
</tr>
<tr>
<td>BE8/PVR#</td>
<td>8 Watt mains/slave changeover</td>
<td>275</td>
<td>1.20Kg</td>
</tr>
<tr>
<td>BE8/LED/#D</td>
<td>LED slave bulkhead</td>
<td>125</td>
<td>1.40Kg</td>
</tr>
</tbody>
</table>

For fluorescent versions replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts. For LED versions replace # with AC/DC system Voltage 110 or 230 Volts.
Cadiz

Practical bulkhead for interior use

**Features**
- Simple clip-fit diffuser ensures ease of installation and maintenance
- Hinged clip-out steel gear tray with pre-formed centre rear besa entry
- Flame retardant polycarbonate body and diffuser, which incorporates etched areas to partially obscure the lamp from view
- Can be fitted with a self-adhesive legend kit to create an exit sign
- Non-maintained versions are BSI Kitemarked
- Ideal for use in offices and retail outlets

**Options**
Add suffix to catalogue number:
- /AD Intelligent addressable luminaire (non-maintained versions only)
- /CAD/WH White semi-recessing kit
- /DALI DALI emergency control gear
- /SAL1 Self-adhesive legend kit
- /ST Digital self-test luminaire (non-maintained versions only)
- /TS Push-to-test switch

**Specification**

**Body**
Flame retardant polycarbonate with white finish

**Diffuser**
Clear flame retardant polycarbonate

**Gear Tray**
Sheet steel gear tray

**Charger LED**
Constant current with green LED for mains healthy and connected battery

**Lamps**
8 Watt T5 fluorescent are supplied complete with the luminaire

**Dimensions**

**Luminaire Dimensions**
Length 350mm x Width 108mm x Depth 80mm

**Cut-Out Dimensions**
Length 335mm x Width 107mm (when used with CAD/WH semi-recessing kit)

**Viewing Distance**
18 Metres (when supplied with SAL1 legend kit)

**Technical Information**
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

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**Emergency Luminaires**

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD8/NM3/E</td>
<td>8W NM3 economy output</td>
<td>80</td>
<td>1.20Kg</td>
</tr>
<tr>
<td>CAD8/NM3</td>
<td>8W NM3 standard output</td>
<td>120</td>
<td>1.20Kg</td>
</tr>
<tr>
<td>CAD8/NM3/H</td>
<td>8W NM3 high output</td>
<td>180</td>
<td>1.20Kg</td>
</tr>
<tr>
<td>CAD8/M3/E</td>
<td>8W M3 economy output</td>
<td>80</td>
<td>1.45Kg</td>
</tr>
<tr>
<td>CAD8/M3</td>
<td>8W M3 standard output</td>
<td>120</td>
<td>1.45Kg</td>
</tr>
<tr>
<td>CAD8/M3/H</td>
<td>8W M3 high output</td>
<td>180</td>
<td>1.45Kg</td>
</tr>
<tr>
<td>CAD2X8/NM3/E</td>
<td>2 x 8W NM3 economy output</td>
<td>150</td>
<td>1.75Kg</td>
</tr>
<tr>
<td>CAD2X8/NM3</td>
<td>2 x 8W NM3 standard output</td>
<td>250</td>
<td>1.75Kg</td>
</tr>
</tbody>
</table>

**Slave Luminaires**

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD8/#D</td>
<td>8 Watt slave bulkhead</td>
<td>275</td>
<td>1.00Kg</td>
</tr>
</tbody>
</table>

Replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts.
Features

- Flame-retardant polycarbonate housing
- Low profile elegant design
- Supplied as a surface mounting luminaire as standard but can be semi-recessed using a semi-recessing kit
- Effective light-pipe design enabling the emergency charge LED indicator to be clearly visible
- Luminaire can be transformed into an elegant exit sign using an edge-lit legend panel
- Wide range of options available to suit specific requirements
- Ideal for use in hotels and reception areas

Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire (non-maintained versions only)
/DALI DALI emergency control gear
/EX Single-sided exit version
/EX/D Double-sided exit version
/HF High frequency ballast
/R Semi-recessing kit
/ST Digital self-test luminaire (non-maintained versions only)
/TS Push-to-test switch
/SAL2 Self-adhesive legend kit

Specification

Body
Flame retardant polycarbonate with white finish

Diffuser
Clear flame retardant polycarbonate

Gear Tray
Sheet steel gear tray

Charger LED
Constant current with green LED for mains healthy and connected battery

Lamps
8 Watt T5 fluorescent supplied complete with the luminaire

LEDs
5 x 0.2W high lumen/watt LED (125 lumens per watt)

Dimensions

Luminaire Dimensions
Length 355mm x Width 195mm x Depth 70mm

Exit Sign Dimensions
Length 355mm x Width 195mm x Overall Depth 230mm (legend panel is 160mm below the ceiling)

Cut-Out Dimensions
Length 335mm x Width 175mm (minimum ceiling void of 70mm required)

Viewing Distance
24 Metres (when supplied with edge-lit legend panel)

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAL1X8</td>
<td>8 Watt mains</td>
<td>400</td>
<td>1.35Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAL8/NM3/E</td>
<td>8W NM3 economy output</td>
<td>80</td>
<td>1.80Kg</td>
</tr>
<tr>
<td>DAL8/NM3</td>
<td>8W NM3 standard output</td>
<td>120</td>
<td>1.80Kg</td>
</tr>
<tr>
<td>DAL8/NM3/H</td>
<td>8W NM3 high output</td>
<td>180</td>
<td>1.80Kg</td>
</tr>
<tr>
<td>DAL8/M3/E</td>
<td>8W M3 economy output</td>
<td>80</td>
<td>2.00Kg</td>
</tr>
<tr>
<td>DAL8/M3</td>
<td>8W M3 standard output</td>
<td>120</td>
<td>2.00Kg</td>
</tr>
<tr>
<td>DAL8/M3/H</td>
<td>8W M3 high output</td>
<td>180</td>
<td>2.00Kg</td>
</tr>
<tr>
<td>DAL/LED/M3</td>
<td>LED NM3/M3</td>
<td>125</td>
<td>1.80Kg</td>
</tr>
</tbody>
</table>

Slave Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAL8/#D</td>
<td>8 Watt slave bulkhead</td>
<td>275</td>
<td>1.10Kg</td>
</tr>
<tr>
<td>DAL/LED/#D</td>
<td>LED slave bulkhead</td>
<td>125</td>
<td>1.10Kg</td>
</tr>
</tbody>
</table>

For fluorescent versions replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts, for LED versions replace # with AC/DC system Voltage 110 or 230 Volts.
Eden

IP65 compact bulkhead

Features
- Fresnel lens diffuser designed for improved performance and excellent light distribution
- White flame retardant polycarbonate body
- Hinged steel gear tray, centre rear besa entry and 20mm conduit knockouts at each end for ease of installation
- Can be fitted with a self-adhesive legend kit to create an exit sign
- Energy saving LED option available with high quality LED’s with extended life expectancy
- Ideal for use in corridors, exits and escape routes

Options
Add suffix to catalogue number:
/ED/WH White semi-recessing kit
/SAL1 Self-adhesive legend kit

Specifi cation
Body
Flame retardant polycarbonate with white finish
Diffuser
Flame retardant polycarbonate fresnel lens
Gear Tray
Sheet steel gear tray
Charger LED
Constant current with green LED for mains healthy and connected battery
Lamps
8 Watt T5 fluorescent lamps are supplied complete with the luminaire
LED’s
Economy Output Versions - 27 x 5md, total power 0.36W
Standard Output Versions - 5 x 0.2W high lumen/watt LED (125 lumens per watt)
High Output Versions - 15 x 0.2W mains LED/5 x emergency LED

Dimensions
Luminaire Dimensions
Length 350mm x Width 108mm x Depth 80mm
Cut-Out Dimensions
Length 330mm x Width 90mm (when used with ED/WH semi-recessing kit)
Viewing Distance
18 Metres (when supplied with SAL1 legend kit)

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk
* Third party approval applied for.

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED/LED/E</td>
<td>LED mains economy output</td>
<td>90</td>
<td>1.20Kg</td>
</tr>
<tr>
<td>ED/LED</td>
<td>LED mains standard output</td>
<td>125</td>
<td>1.20Kg</td>
</tr>
<tr>
<td>ED/LED/H</td>
<td>LED mains high output</td>
<td>360</td>
<td>1.20Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED8/NM3/E</td>
<td>8W NM3 economy output</td>
<td>80</td>
<td>1.20Kg</td>
</tr>
<tr>
<td>ED8/M3/E</td>
<td>8W M3 economy output</td>
<td>80</td>
<td>1.45Kg</td>
</tr>
<tr>
<td>ED/LED/M3/E</td>
<td>LED NM3/M3 economy output</td>
<td>70</td>
<td>1.45Kg</td>
</tr>
<tr>
<td>ED/LED/M3</td>
<td>LED NM3/M3</td>
<td>125</td>
<td>1.45Kg</td>
</tr>
<tr>
<td>ED/LED/C3/H</td>
<td>LED C3 high output</td>
<td>125</td>
<td>1.45Kg</td>
</tr>
</tbody>
</table>

For fluorescent versions replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts; for LED versions replace # with AC/DC system Voltage 110 or 230 Volts.
Napoli

Slim profile injection-moulded polycarbonate exit sign

Features
- Pleasing aesthetic design
- Injection-moulded polycarbonate body
- Clip fixings for quick and simple installation
- IP20 protection ensures suitability for use in sheltered exterior locations
- Supplied complete with specified legend panel
- Ideal for use in corridors, final exits and escape routes

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/ST Digital self-test luminaire

Specification
Body
Flame retardant polycarbonate

Legend Panel
Flame retardant polycarbonate

Control Gear
Gear is mounted directly onto the back of the housing

Charger LED
Constant current with green LED for mains healthy and connected battery

Lamps
8 Watt T5 fluorescent are supplied complete with the exit sign
5 x 0.2W high lumen/watt LED (125 lumens per watt)

Dimensions
Exit Sign Dimensions
Length 420mm x Width 221mm x Depth 58mm

Viewing Distance
36 Metres

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

IP20

Mains Exit Signs

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA8</td>
<td>8 Watt mains</td>
<td>400</td>
<td>2.30Kg</td>
</tr>
<tr>
<td>NA/LED</td>
<td>LED mains</td>
<td>125</td>
<td>2.30Kg</td>
</tr>
</tbody>
</table>

Emergency Exit Signs

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA8/NM3/E</td>
<td>8W NM3 economy output</td>
<td>80</td>
<td>2.30Kg</td>
</tr>
<tr>
<td>NA8/M3/E</td>
<td>8W M3 economy output</td>
<td>80</td>
<td>2.60Kg</td>
</tr>
<tr>
<td>NA8/NM3</td>
<td>8W NM3 standard output</td>
<td>120</td>
<td>2.30Kg</td>
</tr>
<tr>
<td>NA8/M3</td>
<td>8W M3 standard output</td>
<td>120</td>
<td>2.60Kg</td>
</tr>
<tr>
<td>NA/LED/M3</td>
<td>LED NM3/M3</td>
<td>125</td>
<td>2.30Kg</td>
</tr>
</tbody>
</table>

Slave Exit Signs

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA8/#D</td>
<td>8 Watt slave bulkhead</td>
<td>275</td>
<td>2.30Kg</td>
</tr>
<tr>
<td>NA/LED/#D</td>
<td>LED slave bulkhead</td>
<td>125</td>
<td>2.30Kg</td>
</tr>
</tbody>
</table>

For fluorescent versions replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts; for LED versions replace # with AC/DC system Voltage 110 or 230 Volts.
Pescara

Features
- Sheet steel construction in white finish as standard, with black, polished brass and polished chrome finishes available to order
- Hinged steel gear tray, centre rear besa entry and keyhole slots for ease of installation
- Supplied complete with specified legend panel
- Opal threshold illuminates the area below the sign
- IP65 versions are of robust construction to suit a host of exterior applications
- Non-maintained, maintained and combined models are BSI approved to EN60598
- Emergency versions incorporate integral BSI approved emergency control gear
- Legend panel can be removed from either end via removable end-caps so the sign can be fitted closely into corners if required
- Ideal for use in corridors, final exits and escape routes in industrial, commercial and retail applications

Options
Add suffix to catalogue number:
/AD Intelligent addressable exit sign
/BK Black finish
/BR Brass finish
/CH Chrome finish
/DALI DALI emergency control gear
/HF High frequency ballast
/IP65 IP65 version (no threshold downlight panel)
/ST Digital self-test exit sign
/TS Push-to-test switch
/VR Anti-tamper screws

Mains Exit Signs

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PES8</td>
<td>8 Watt single-sided mains</td>
<td>400</td>
<td>2.60Kg</td>
</tr>
<tr>
<td>PED8</td>
<td>8 Watt double-sided mains</td>
<td>400</td>
<td>2.60Kg</td>
</tr>
</tbody>
</table>

Emergency Exit Signs

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PES8/NM3</td>
<td>8 Watt single-sided NM3</td>
<td>120</td>
<td>2.75Kg</td>
</tr>
<tr>
<td>PES8/M3</td>
<td>8 Watt single-sided M3</td>
<td>120</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>PES8/C3</td>
<td>8 Watt single-sided C3 (1 lamp mains + 1 lamp NM3)</td>
<td>120</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>PED8/NM3</td>
<td>8 Watt double-sided NM3</td>
<td>120</td>
<td>2.75Kg</td>
</tr>
<tr>
<td>PED8/M3</td>
<td>8 Watt double-sided M3</td>
<td>120</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>PES/LED/C3</td>
<td>LED single-sided C3</td>
<td>125</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>PED/LED/C3</td>
<td>LED double-sided C3</td>
<td>125</td>
<td>3.00Kg</td>
</tr>
</tbody>
</table>

Slave Exit Signs

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PES8/#D</td>
<td>8 Watt single-sided slave</td>
<td>275</td>
<td>2.50Kg</td>
</tr>
<tr>
<td>PED8/#D</td>
<td>8 Watt double-sided slave</td>
<td>275</td>
<td>2.50Kg</td>
</tr>
<tr>
<td>PES/LED/#D</td>
<td>LED single-sided slave</td>
<td>125</td>
<td>2.50Kg</td>
</tr>
<tr>
<td>PED/LED/#D</td>
<td>LED double-sided slave</td>
<td>125</td>
<td>2.50Kg</td>
</tr>
</tbody>
</table>

Specification

Body
Sheet steel with white gloss powder coated finish (black, polished brass, polished chrome available as options)

Legend Panel
Flame retardant polycarbonate

Charger LED
Constant current with green LED for mains healthy and connected battery

Lamps
8 Watt T5 fluorescent are supplied complete with the exit sign

LED’s
Mains - 15 x 0.2W high lumen/watt LED
Emergency - 5 x 0.2W high lumen/watt LED

Dimensions
Single-Sided & Double-Sided Versions
Length 385mm x Width 200mm x Depth 95mm

IP65 Versions
Length 445mm x Width 225mm x Depth 95mm

Viewing Distance
36 Metres

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts.
Pescara-G

Large exit sign with an 80 metre viewing distance

Options
Add suffix to catalogue number:
/AD Intelligent addressable exit sign
/HF High frequency ballast
/IP65 IP65 version (LED version only)
/ST Digital self-test exit sign

Features
- 80 metre viewing ensures suitability to applications where greater viewing distances are required
- Sheet steel construction in white finish
- ‘U’ channel geartray ensures even illumination in both single-sided and double-sided versions
- Supplied complete with specified legend panel(s)
- Double panel illuminates directly below the sign to the escape route and door threshold
- IP65 version available to suit exterior applications
- Emergency versions incorporate integral BSI approved emergency control gear
- Ideal for use in supermarkets, car parks and warehouses

Specification
Body
Sheet steel with white gloss powder coated finish
Legend Panel
Flame retardant polycarbonate
Charger LED
Constant current with green LED for mains healthy and connected battery
Lamps
18 Watt T8 fluorescent lamps are supplied complete with the exit sign
LED’s
70 x 0.2W high lumen/watt LED

Dimensions
Single-Sided & Double-Sided Versions
Length 620mm x Width 455mm x Depth 155mm
IP65 Versions
Length 625mm x Width 520mm x Depth 100mm
Viewing Distances
Standard version - 80 metres
IP65 version - 66 metres

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Exit Signs

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PESG/LED</td>
<td>LED single-sided</td>
<td>1680</td>
<td>9.30Kg</td>
</tr>
</tbody>
</table>

Emergency Exit Signs

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PES18/NM3</td>
<td>18 Watt T8 single-sided NM3</td>
<td>320</td>
<td>9.30Kg</td>
</tr>
<tr>
<td>PES18/M3</td>
<td>18 Watt T8 single-sided M3</td>
<td>320</td>
<td>9.40Kg</td>
</tr>
<tr>
<td>PED18/NM3</td>
<td>18 Watt T8 double-sided NM3</td>
<td>320</td>
<td>9.30Kg</td>
</tr>
<tr>
<td>PED18/M3</td>
<td>18 Watt T8 double-sided M3</td>
<td>320</td>
<td>9.40Kg</td>
</tr>
<tr>
<td>PESG/LED/M3</td>
<td>LED single-sided M3</td>
<td>490</td>
<td>9.30Kg</td>
</tr>
<tr>
<td>PESG/LED/M3/IP65</td>
<td>LED single-sided M3 IP65</td>
<td>490</td>
<td>9.80Kg</td>
</tr>
</tbody>
</table>

Slave Exit Signs

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PES18/AD</td>
<td>18 Watt T5 single-sided slave</td>
<td>320</td>
<td>9.30Kg</td>
</tr>
<tr>
<td>PED18/AD</td>
<td>18 Watt T5 double-sided slave</td>
<td>320</td>
<td>9.30Kg</td>
</tr>
</tbody>
</table>

Replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts.
Petina

Ultra-slim LED single and double-sided exit sign

Features
- Single-sided versions depth is only 30mm
- Sheet steel construction in white finish as standard with black, polished brass, polished chrome and silver-grey finishes available as options
- Flame retardant plasiglass legend panel utilises advanced optical design, ensuring an even spread of illumination from the sign’s LED’s
- Double-sided versions can be supplied with wire-suspension kits and end-mounting brackets
- Supplied complete with specified legend panel(s)
- Ideal for use in corridors, final exits and escape routes in retail and commercial applications

Options
Add suffix to catalogue number:
/BK Black finish
/BR Brass finish
/CH Chrome finish
/DALI DALI emergency control gear
/RB Right-angled mounting bracket (double-sided versions only)
/SG Silver-grey finish
/ST Digital self-test exit sign
/WS Wire-suspension kit (double-sided versions only)

Specification
Body
Sheet steel with white gloss powder coated finish as standard (black, polished brass, polished chrome and silver-grey finishes available as options)

Legend Panel
Flame retardant plasiglass

Charger LED
Constant current with green LED for mains healthy and connected battery

LED’s
0.2W high lumen/watt LED

Emergency Exit Signs

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE/M3/WH</td>
<td>LED single-sided M3 white finish</td>
<td>125</td>
<td>2.00Kg</td>
</tr>
<tr>
<td>PD/M3/WH</td>
<td>LED double-sided M3 white finish</td>
<td>125</td>
<td>2.60Kg</td>
</tr>
</tbody>
</table>

Slave Exit Signs

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE/#D/WH</td>
<td>LED single-sided slave</td>
<td>125</td>
<td>2.30Kg</td>
</tr>
<tr>
<td>PD/#D/WH</td>
<td>LED double-sided slave</td>
<td>125</td>
<td>2.30Kg</td>
</tr>
</tbody>
</table>

Dimensions
Single-Sided Versions
Length 360mm x Width 235mm x Depth 30mm

Double-Sided Versions
Length 377mm x Width 255mm x Depth 45mm

Viewing Distance
28 Metres

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk
Features
- Sheet steel construction in white finish as standard
- Centre rear besa entry and keyhole slots for ease of installation
- Supplied complete with specified legend panel
- Opal threshold illuminates the area below the sign
- LED version maximises the efficiency of high quality LEDs to provide extended life
- Unobtrusive depth of only 65mm
- Legend panel can be removed from either end via removable end-caps
- Ideal for use in corridors, final exits and escape routes in industrial, commercial and retail applications

Options
Add suffix to catalogue number:
/AD Intelligent addressable exit sign
/HF High frequency ballast
/ST Digital self-test exit sign
/TS Push-to-test switch

Specification
Body
Sheet steel with white gloss powder coated finish (polished brass and polished chrome available as options)

Legend Panel
Flame retardant polycarbonate

Charger LED
Constant current with green LED for mains healthy and connected battery

Lamps
8 Watt T5 fluorescent are supplied complete with the exit sign

LED's
15 x 0.2W high lumen/watt LED (125 lumens/watt)

Dimensions
Exit Sign Versions
Length 385mm x Width 200mm x Depth 65mm

Viewing Distance
36 Metres

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Exit Sign

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIC8/NM3/E</td>
<td>8W NM3 economy output</td>
<td>80</td>
<td>2.60Kg</td>
</tr>
<tr>
<td>PIC8/M3/E</td>
<td>8W M3 economy output</td>
<td>80</td>
<td>2.90Kg</td>
</tr>
<tr>
<td>PIC8/NM3</td>
<td>8 Watt NM3 standard output</td>
<td>120</td>
<td>2.60Kg</td>
</tr>
<tr>
<td>PIC8/M3</td>
<td>8 Watt M3 standard output</td>
<td>120</td>
<td>2.90Kg</td>
</tr>
<tr>
<td>PIC/LED/M3</td>
<td>LED M3</td>
<td>125</td>
<td>2.50Kg</td>
</tr>
</tbody>
</table>

Emergency Exit Signs

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIC8/NM3/E</td>
<td>8W NM3 economy output</td>
<td>80</td>
<td>2.60Kg</td>
</tr>
<tr>
<td>PIC8/M3/E</td>
<td>8W M3 economy output</td>
<td>80</td>
<td>2.90Kg</td>
</tr>
<tr>
<td>PIC8/NM3</td>
<td>8 Watt NM3 standard output</td>
<td>120</td>
<td>2.60Kg</td>
</tr>
<tr>
<td>PIC8/M3</td>
<td>8 Watt M3 standard output</td>
<td>120</td>
<td>2.90Kg</td>
</tr>
<tr>
<td>PIC/LED/M3</td>
<td>LED M3</td>
<td>125</td>
<td>2.50Kg</td>
</tr>
</tbody>
</table>

Slave Exit Signs

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIC8/#D</td>
<td>8 Watt slave</td>
<td>275</td>
<td>2.30Kg</td>
</tr>
<tr>
<td>PIC/LED/#D</td>
<td>LED slave</td>
<td>125</td>
<td>2.30Kg</td>
</tr>
</tbody>
</table>

For fluorescent versions replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts, for LED versions replace # with AC/DC system Voltage 110 or 230 Volts.
Features
- Sheet steel construction
- Elegant design utilizes an attractive curved fascia ensuring suitability to most prestigious applications
- Supplied complete with specified legend panel(s)
- Opal threshold illuminates the area below the sign
- Available in single-sided or double-sided versions
- Emergency versions incorporate integral BSI approved emergency control gear
- Can be supplied with a host of options including integral addressable and self-testing gear
- Ideal for use in corridors, final exits and escape routes in commercial and retail applications

Options
Add suffix to catalogue number:
/AD Intelligent addressable exit sign
/DALI DALI emergency control gear
/HF High frequency ballast
/ST Digital self-test exit sign
/WS Wire-suspension kit

Specification
Body
Sheet steel with white powder coated finish
Legend Panel
Flame retardant polycarbonate
Charger LED
Constant current with green LED for mains healthy and connected battery
Lamps
8 Watt T5 fluorescent are supplied complete with the exit sign
LED’s
0.2W high lumen/watt LED

Dimensions
Single-Sided Versions
Length 440mm x Width 220mm x Depth 65mm
Double-Sided Versions
Length 440mm x Width 250mm x Depth 130mm
Viewing Distance
36 Metres

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

For all Legend details
See Page 27
Features
- Robust sheet steel construction in white epoxy coated finish
- Specifically engineered to utilise LED technology and offers extended life
- Flame retardant plasiglas legend panel ensures an even spread of illumination from the sign's LED's
- Range includes a trio of additional mounting options; a wall mounting bracket, a right-angled mounting bracket and a wire-suspension kit
- Supplied complete with specified legend panel
- Legend panel is available in two sizes; 175mm as standard and 135mm legend for areas where height is restricted
- Ideal for use in corridors, final exits and escape routes in retail and commercial applications

Options
Add suffix to catalogue number:
/135MM 135mm legend panel
/D Double sided legend panel
/RAB Right-angled mounting bracket
/ST Digital self-test luminaire
/WMB Wall mounting bracket
/WS Wire-suspension kit

Specification
Body
Sheet steel with white epoxy finish
Legend Panel
Flame retardant plasiglas
Charger LED
Constant current with green LED for mains healthy and connected battery
LED's
5 x 0.2W high lumen/watt LED (125 lumens/watt)

Dimensions
Exit Sign Dimensions (Without Mounting Option)
Length 300mm x Height (including legend panel) 240mm x Depth 40mm (height is 195mm when using 135mm legend panel)
Exit Sign Dimensions (Fitted with Right-Angled Mounting Bracket)
Length 380mm x Height (including legend panel) 255mm x Depth 40mm (height is 210mm when using 135mm legend panel)
Exit Sign Dimensions (Fitted with Wall Mounting Bracket)
Length 300mm x Height (including legend panel) 255mm x Depth 40mm (height is 210mm when using 135mm legend panel)
Exit Sign Dimensions (Fitted with Wire-Suspension Kit*)
Length 300mm x Height (including legend panel) 765mm x Depth 40mm (height is 645mm when using 135mm legend panel)

* Dimensions are calculated using maximum wire length of 500mm; wire can be adjusted shorter

Viewing Distance
24 Metres with standard legend panel,
20 Metres with 135mm legend panel

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Emergency Exit Sign

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROM/LED/M3</td>
<td>LED M3 single sided</td>
<td>125</td>
<td>1.60Kg</td>
</tr>
</tbody>
</table>
LED exit sign suitable for wall or ceiling mounting

Features
- Robust sheet steel construction in white epoxy coated finish as standard with a variety of colour finishes available to order
- Combines long-life LED technology with high quality engineering
- Flame retardant plasiglas legend panel ensures an even spread of illumination from the sign's LED's
- Versatile design allows the sign to be wall mounted, ceiling mounted or recessed
- Supplied complete with specified legend panel
- Suitable for non-maintained or maintained emergency modes
- Ideal for use in corridors, final exits and escape routes in retail and commercial applications

Options
Add suffix to catalogue number:
/BK Black finish
/BR Brass finish
/CH Chrome finish
/D Double sided legend panel
/R Recessed version
/SG Silver-grey finish
/ST Digital self-test luminaire

Specification
Body
Sheet steel with white finish as standard (black, brass, chrome and silver grey finishes available as options)

Legend Panel
Flame retardant plasiglass

Charger LED
Constant current with green LED for mains healthy and connected battery

LED’s
5 x 0.2W high lumen/watt LED (125 lumens/watt)

Dimensions
Exit Sign Dimensions
Length 310mm x Height (including legend panel) 260mm x Depth 40mm

Recessed Exit Sign Dimensions
Length 310mm x Height (including legend panel) 235mm x Depth 40mm (overall height is 265mm but 30mm of Rota body is recessed into the ceiling)

Viewing Distance
24 Metres

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Replace # with AC/DC system Voltage 110 or 230 Volts.
Savona

Edge-lit chain-suspended or recessed exit sign

Features
- Contemporary design lends itself to many prestigious installations
- Available as a chain-suspended or recessed exit sign finished in white as standard with brass and chrome available as options
- Flame retardant plasti-glas legend panel’s light conducting properties ensure even and clear illumination
- Supplied complete with specified single-sided legend panel (double-sided legends available to order)
- In areas where height is restricted, the sign’s chain can be removed so legend fits directly onto mounting bar
- Legend is assembled using just two screws for easy installation
- Savona Petite available to offer a compact, unobtrusive and aesthetically pleasing LED emergency exit sign
- Ideal for use in corridors, final exits and escape routes in retail and commercial applications

Options
Add suffix to catalogue number:
/AD Intelligent addressable exit sign
/BR Brass finish
/CH Chrome finish
/DALI DALI emergency control gear
/D Double-sided legend panel
/R Recessed version
/RAB Right-angled mounting bracket (chain-suspended versions only)
/ST Digital self-test exit sign

Specification

Body
Sheet steel with white powder coated finish as standard (polished brass and polished chrome finishes available as options)

Legend Panel
Flame retardant plasti-glas

Charger LED
Constant current with green LED for mains healthy and connected battery

Lamps
8 Watt T5 fluorescent lamps are supplied complete with the exit sign

LED’s
5 x 0.2W high lumen/watt LED (125 lumens/watt)

Dimensions

Standard Chain-Suspended Versions (Including Ceiling Bar, Chain & Legend Panel)
Length 445mm x Height* 820mm x Depth 90mm (*height is 380mm if chain is removed)

Recessed Versions (Including Legend Panel)
Length 430mm x Height† 320mm x Depth 45mm († legend is 230mm below the ceiling)

Cut-Out Dimensions (Recessed Versions)
Length 428mm x Width 135mm x Depth 85mm (minimum ceiling void)

Savona Petite Dimensions (Including Ceiling Bar, Chain & Legend Panel)
Length 340mm x Height* 735mm x Width 85mm (*height is 295mm if chain is removed)

Viewing Distance
36 Metres (standard versions)
24 Metres (Savona Petite version)

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Exit Sign

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAV8/WH</td>
<td>8 Watt chain-suspended mains finish</td>
<td>400</td>
<td>2.90Kg</td>
</tr>
</tbody>
</table>

Emergency Exit Signs

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAV8/MM/WH</td>
<td>8 Watt chain-suspended NM3</td>
<td>120</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>SAV8/M3/WH</td>
<td>8 Watt chain-suspended M3</td>
<td>120</td>
<td>3.20Kg</td>
</tr>
<tr>
<td>SAV/LED/M3/WH</td>
<td>LED chain-suspended M3</td>
<td>125</td>
<td>3.20Kg</td>
</tr>
<tr>
<td>SP/LED/M3</td>
<td>Savona Petite chain-suspended LED M3</td>
<td>125</td>
<td>3.20Kg</td>
</tr>
</tbody>
</table>

Slave Exit Signs

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAV8/WD/WH</td>
<td>8 Watt chain-suspended slave</td>
<td>275</td>
<td>2.00Kg</td>
</tr>
<tr>
<td>SAV/LED/WD</td>
<td>LED chain-suspended slave</td>
<td>125</td>
<td>2.00Kg</td>
</tr>
</tbody>
</table>

For fluorescent versions replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts; for LED versions replace # with AC/DC system Voltage 110 or 230 Volts.
Features
- Robust IP65 polycarbonate housing
- Screw-fixing diffuser located with brass threaded inserts
- Hinged steel gear tray, centre rear hesa entry and 20mm conduit knockouts at each end for ease of installation
- Supplied with 2 self-adhesive legend panels to create a double-sided exit sign
- Non-maintained versions are BSI Kitemarked
- Can be surface mounted or semi-recessed using a semi-recessing kit
- Ideal for use in corridors, final exits and escape routes in most public areas

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/DALI DALI emergency control gear
/HF High frequency ballast
/ST Digital self-test luminaire
/TI/WH White semi-recessing kit
/TS Push-to-test switch
/VR Anti-tamper screws

Specification
Body
Flame retardant polycarbonate with white finish
Diffuser
Flame retardant polycarbonate with opal finish
Gear Tray
Sheet steel gear tray
Charger LED
Constant current with green LED for mains healthy and connected battery
Lamps
8 Watt T5 fluorescent are supplied complete with the exit sign
LED’s
5 x 0.2W high lumen/watt LED (125 lumens/watt)

Dimensions
Luminaire Dimensions
Length 350mm x Width 108mm x Depth 204mm
Cut-Out Dimensions
Length 330mm x Width 90mm (when used with TI/WH semi-recessing kit)
Viewing Distance
28 Metres

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk
* Third party approval applied for.

For fluorescent versions replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts; for LED versions replace # with AC/DC system Voltage 110 or 230 Volts.

Slave Exit Signs
<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIE/#D</td>
<td>8 Watt slave bulkhead</td>
<td>275</td>
<td>0.85Kg</td>
</tr>
<tr>
<td>TV/LED/#D</td>
<td>LED slave bulkhead</td>
<td>125</td>
<td>0.90Kg</td>
</tr>
</tbody>
</table>

For all Legend details See Page 27
Legends

Flame retardant polycarbonate legend panels in BS5499 and EN7010 formats

**BS5499 Format**
Suitable for existing installations; cannot be mixed with EN7010 format signage.

- L16
- L17
- L18
- L19
- L20
- L21
- L22
- L23

**EN7010 Format**
Suitable for existing new builds; cannot be mixed with BS5499 format signage. L17 legend panel is used to signify direction straight on and final exits in EN7010 format.

- L16/7010
- L17/7010
- L19/7010
- L20/7010
Commercial.

An extensive range of mains and emergency luminaires for use in commercial areas such as offices, reception areas and conference rooms.
Features
- Low profile steel base designed to provide enhanced thermal dissipation
- Uniform light distribution across the panel
- High quality LED's with extended life expectancy
- Attractive opal prismatic diffuser
- Designed for maximum controlled lumen output
- Visually comfortable
- Colour temperature 5000K as standard (4800 lumen output)
- Optional colour temperature 3500K (4400 lumen output)
- Ideal for classrooms, offices, meeting rooms and hospitals

Options
Add suffix to catalogue number:
- /AD Intelligent addressable luminaire
- /35K Colour temperature 3500K
- /DALI DALI emergency control gear
- /DIM Dimmable ballast
- /SM Surface mounted version
- /ST Digital self-test luminaire

Specification
Body
Sheet steel with white gloss powder coated finish

Diffuser
Opal prismatic polycarbonate diffuser

Charger LED
Constant current with green LED for mains healthy and connected battery

LED's
Mains - 210 x 0.2W high lumen/watt LED
Emergency - 25 x 0.2W high lumen/watt LED

Dimensions
Recessed Luminaire Dimensions
Length 595mm x Width 595mm x Depth 55mm

Surface Luminaire Dimensions
Length 600mm x Width 600mm x Overall Depth 55mm

Cut-Out Dimensions
Length 578mm x Width 578mm (minimum ceiling void of 55mm required)

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orvik.co.uk

Mains Luminaires
<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARR/LED/E</td>
<td>LED mains economy output</td>
<td>3000</td>
<td>6.00Kg</td>
</tr>
<tr>
<td>ARR/LED</td>
<td>LED mains standard output</td>
<td>5050</td>
<td>6.00Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires
<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARR/LED/M3/E</td>
<td>LED M3 economy output</td>
<td>400</td>
<td>7.20Kg</td>
</tr>
<tr>
<td>ARR/LED/M3</td>
<td>LED M3 standard output</td>
<td>400</td>
<td>7.20Kg</td>
</tr>
</tbody>
</table>

Replace # with AC/DC system Voltage 110 or 230 Volts.
Ipstones T5

Surface mounted IP65 T5 non-corrosive luminaire

Features
- Construction consists of an ABS base with a polycarbonate lens and retaining clips
- Steel gear-tray retained on straps for easy installation
- Facilities provided for suspension of luminaire
- Rear or end cable knockouts for ease of installation
- High frequency ballast in mains and emergency versions as standard
- BSI approved emergency gear options available in 28 Watt to 49 Watt single or twin lamp versions
- Ideal for use in changing rooms and industrial areas such as workshops and factories

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/SCL Stainless steel clip
/ST Digital self-test luminaire

Specification
Body
ABS body
Diffuser
Polycarbonate diffuser
Gear Tray
Sheet steel gear tray
Charger LED
Constant current with green LED for mains healthy and connected battery
Lamps
28 Watt, 35 Watt, 49 Watt or 54 Watt T5 fluorescent lamps (not supplied)

Dimensions

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPS28/HF</td>
<td>28W T5 high frequency mains</td>
<td>2600</td>
<td>2.00Kg</td>
</tr>
<tr>
<td>IPS35/HF</td>
<td>35W T5 high frequency mains</td>
<td>3300</td>
<td>2.20Kg</td>
</tr>
<tr>
<td>IPS49/HF</td>
<td>49W T5 high frequency mains</td>
<td>4300</td>
<td>2.20Kg</td>
</tr>
<tr>
<td>IPS54/HF</td>
<td>54W T5 high frequency mains</td>
<td>4450</td>
<td>2.00Kg</td>
</tr>
<tr>
<td>IPS214/HF</td>
<td>2 x 14W T5 high frequency mains</td>
<td>2400</td>
<td>1.20Kg</td>
</tr>
<tr>
<td>IPS228/HF</td>
<td>2 x 28W T5 high frequency mains</td>
<td>5200</td>
<td>2.10Kg</td>
</tr>
<tr>
<td>IPS235/HF</td>
<td>2 x 35W T5 high frequency mains</td>
<td>6600</td>
<td>2.30Kg</td>
</tr>
<tr>
<td>IPS249/HF</td>
<td>2 x 49W T5 high frequency mains</td>
<td>8600</td>
<td>2.30Kg</td>
</tr>
<tr>
<td>IPS254/HF</td>
<td>2 x 54W T5 high frequency mains</td>
<td>8900</td>
<td>2.10Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires*

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPS28/M3</td>
<td>28W T5 high frequency M3</td>
<td>650</td>
<td>2.70Kg</td>
</tr>
<tr>
<td>IPS228/M3</td>
<td>2 x 28W T5 high frequency M3</td>
<td>890</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>IPS35/M3</td>
<td>35W T5 high frequency M3</td>
<td>860</td>
<td>3.20Kg</td>
</tr>
<tr>
<td>IPS235/M3</td>
<td>2 x 35W T5 high frequency M3</td>
<td>650</td>
<td>2.80Kg</td>
</tr>
<tr>
<td>IPS49/M3</td>
<td>49W T5 high frequency M3</td>
<td>890</td>
<td>3.10Kg</td>
</tr>
<tr>
<td>IPS249/M3</td>
<td>2 x 49W T5 high frequency M3</td>
<td>860</td>
<td>3.30Kg</td>
</tr>
</tbody>
</table>

* Reverts to one lamp in emergency mode.

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

IP65
Features
- Construction consists of an ABS base with a polycarbonate lens and retaining clips
- Steel gear-tray retained on straps for easy installation
- Facilities provided for suspension of luminaire
- Rear or end cable knockouts for ease of installation
- High frequency ballast in mains and emergency versions as standard
- LED versions available in mains and emergency mode
- BSI approved emergency gear options available in 36 Watt to 70 Watt single or twin lamp versions
- 36 Watt and 58 Watt single and twin lamp 110 Volt site-work versions available to order
- Ideal for use in changing rooms and industrial areas such as workshops and factories

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/SCL Stainless steel clip
/ST Digital self-test luminaire

Specification
Body
ABS body
Diffuser
Polycarbonate diffuser
Gear Tray
Sheet steel gear tray
Charger LED
Constant current with green LED for mains healthy and connected battery
Lamps
18 Watt, 36 Watt, 58 Watt or 70 Watt T8 fluorescent lamps (not supplied)
LED's
0.2W high lumen/watt LED

Dimensions
Single 18 Watt Luminaire Dimensions
Length 660mm x Width 93mm x Height 100mm (retaining clips quantity 6)
Twin 18 Watt Luminaire Dimensions
Length 660mm x Width 140mm x Height 100mm (retaining clips quantity 6)
Single 36 Watt Luminaire Dimensions
Length 1270mm x Width 93mm x Height 100mm (retaining clips quantity 10)
Twin 36 Watt Luminaire Dimensions
Length 1270mm x Width 140mm x Height 100mm (retaining clips quantity 10)
Single 58 Watt Luminaire Dimensions
Length 1565mm x Width 93mm x Height 100mm (retaining clips quantity 12)
Twin 58 Watt Dimensions
Length 1565mm x Width 140mm x Height 100mm (retaining clips quantity 12)
Single 70 Watt Luminaire Dimensions
Length 1870mm x Width 93mm x Height 100mm (retaining clips quantity 12)
Twin 70 Watt Luminaire Dimensions
Length 1870mm x Width 146mm x Height 100mm (retaining clips quantity 12)
Standard Output LED Dimensions
Length 1565mm x Width 94mm x Height 98mm
High Output LED Dimensions
Length 1565mm x Width 138mm x Height 98mm

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPS18/HF</td>
<td>18W T8 high frequency</td>
<td>1350</td>
<td>1.40Kg</td>
</tr>
<tr>
<td>IPS36/HF</td>
<td>36W T8 high frequency</td>
<td>3350</td>
<td>2.20Kg</td>
</tr>
<tr>
<td>IPS58/HF</td>
<td>58W T8 high frequency</td>
<td>5200</td>
<td>2.35Kg</td>
</tr>
<tr>
<td>IPS70/HF</td>
<td>70W T8 high frequency</td>
<td>6200</td>
<td>3.60Kg</td>
</tr>
<tr>
<td>IPS218/HF</td>
<td>2 x 18W T8 high frequency</td>
<td>2700</td>
<td>1.80Kg</td>
</tr>
<tr>
<td>IPS236/HF</td>
<td>2 x 36W T8 high frequency</td>
<td>6700</td>
<td>3.15Kg</td>
</tr>
<tr>
<td>IPS258/HF</td>
<td>2 x 58W T8 high frequency</td>
<td>10400</td>
<td>3.50Kg</td>
</tr>
<tr>
<td>IPS270/HF</td>
<td>2 x 70W T8 high frequency</td>
<td>12400</td>
<td>6.15Kg</td>
</tr>
<tr>
<td>IPS/LED</td>
<td>LED mains standard output</td>
<td>3000</td>
<td>2.35Kg</td>
</tr>
<tr>
<td>IPS/LED/H</td>
<td>LED mains high output</td>
<td>6000</td>
<td>3.60Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires*

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPS36/M3</td>
<td>36W T8 high frequency M3</td>
<td>260</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>IPS58/M3</td>
<td>58W T8 high frequency M3</td>
<td>520</td>
<td>3.30Kg</td>
</tr>
<tr>
<td>IPS70/M3</td>
<td>70W T8 high frequency M3</td>
<td>430</td>
<td>4.65Kg</td>
</tr>
<tr>
<td>IPS236/M3</td>
<td>2 x 36W T8 high frequency M3</td>
<td>260</td>
<td>3.95Kg</td>
</tr>
<tr>
<td>IPS258/M3</td>
<td>2 x 58W T8 high frequency M3</td>
<td>520</td>
<td>4.45Kg</td>
</tr>
<tr>
<td>IPS270/M3</td>
<td>2 x 70W T8 high frequency M3</td>
<td>430</td>
<td>7.20Kg</td>
</tr>
<tr>
<td>IPS/LED/M3</td>
<td>LED M3 standard output</td>
<td>300</td>
<td>3.30Kg</td>
</tr>
<tr>
<td>IPS/LED/M3/H</td>
<td>LED M3 high output</td>
<td>300</td>
<td>4.65Kg</td>
</tr>
</tbody>
</table>

* Reverts to one lamp in emergency mode.
Kehled

Sleek and elegantly profiled LED luminaire

Features
- Minimalistic low profile design
- Suitable for ceiling and wall mounting
- Available in two body lengths providing versatility for various lighting applications
- Utilises the latest LED arrays to provide impressive light outputs in both mains and emergency modes
- Steel body designed to provide enhanced thermal dissipation
- Attractive opal prismatic diffuser
- Ideal for use in offices, meeting rooms and reception areas

Options
Add suffix to catalogue number:
/AD  Intelligent addressable luminaire
/ST  Digital self-test luminaire
/WS  4 point wide suspension kit

Specification
Body
Sheet steel with white gloss powder coated finish
Diffuser
Opal prismatic polycarbonate diffuser
Charger LED
Constant current with green LED for mains healthy and connected battery
LED's
Size A - 70 x 0.2W high lumen/watt LED
Size B - 140 x 0.2W high lumen/watt LED

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEH/LED/A</td>
<td>LED mains size A</td>
<td>1680</td>
<td>4.30Kg</td>
</tr>
<tr>
<td>KEH/LED/B</td>
<td>LED mains size B</td>
<td>3360</td>
<td>8.60Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEH/LED/M3/A</td>
<td>LED M3 size A</td>
<td>490</td>
<td>5.20Kg</td>
</tr>
<tr>
<td>KEH/LED/M3/B</td>
<td>LED M3 size B</td>
<td>490</td>
<td>9.50Kg</td>
</tr>
</tbody>
</table>

Dimensions

Size A
Length 600mm x Width 240mm x Depth 54mm

Size B
Length 1100mm x Width 240mm x Depth 54mm

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk
Layos

Recessed modular luminaire for T5 and T8 lamps

Features

- High performance high frequency gear as standard
- Powder coated white gloss steel body
- Efficient specular double parabolic louvre with an alternative TP (b) prismatic controller as an option
- All versions are available with integral BSI approved emergency control gear
- Suitable for 15-24mm exposed T ceiling systems
- Ideal for use in offices, shops and schools

Options

Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/DALI DALI emergency control gear
/PR Prismatic diffuser
/ST Digital self-test luminaire

Specification

Body
White gloss powder coated sheet steel

Louver
Double parabolic category 2 louvre (TP (b) prismatic controller available as an option)

Control Gear
All control gear is mounted directly onto the luminaire body

Charger LED
Constant current with green LED for mains healthy and connected battery

Lamps
14 Watt or 28 Watt T5 fluorescent or 18 Watt or 36 Watt T8 fluorescent lamps (not supplied)

Dimensions

14 Watt T5 & 18 Watt T8 Luminaire Dimensions
Length 595mm x Width 595mm x Depth 86mm (minimum ceiling void)

28 Watt T5 & 36 Watt T8 Luminaire Dimensions
Length 1195mm x Width 595mm x Depth 86mm (minimum ceiling void)

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LA414/HF</td>
<td>4 x 14 Watt T5 mains</td>
<td>4800</td>
<td>3.50 Kg</td>
</tr>
<tr>
<td>LA418/HF</td>
<td>4 x 18 Watt T8 mains</td>
<td>5400</td>
<td>3.80 Kg</td>
</tr>
<tr>
<td>LA428/HF</td>
<td>4 x 28 Watt T5 mains</td>
<td>10400</td>
<td>7.40 Kg</td>
</tr>
<tr>
<td>LA436/HF</td>
<td>4 x 36 Watt T8 mains</td>
<td>13400</td>
<td>7.60 Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires*

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LA414/M3</td>
<td>4 x 14 Watt T5 M3</td>
<td>360</td>
<td>4.80 Kg</td>
</tr>
<tr>
<td>LA418/M3</td>
<td>4 x 18 Watt T8 M3</td>
<td>140</td>
<td>4.60 Kg</td>
</tr>
<tr>
<td>LA428/M3</td>
<td>4 x 28 Watt T5 M3</td>
<td>650</td>
<td>8.50 Kg</td>
</tr>
<tr>
<td>LA436/M3</td>
<td>4 x 36 Watt T8 M3</td>
<td>260</td>
<td>8.40 Kg</td>
</tr>
</tbody>
</table>

* Reverts to one lamp in emergency mode
Loutra

Recessed modular luminaire with perforated steel diffuser

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTR55/HF</td>
<td>55 Watt TC-L mains</td>
<td>4850</td>
<td>6.10Kg</td>
</tr>
<tr>
<td>LTR224/HF</td>
<td>2 x 24 Watt T5 mains</td>
<td>3500</td>
<td>5.90Kg</td>
</tr>
<tr>
<td>LTR240/HF</td>
<td>2 x 40 Watt TC-L mains</td>
<td>7000</td>
<td>6.00Kg</td>
</tr>
<tr>
<td>LTR255/HF</td>
<td>2 x 55 Watt TC-L mains</td>
<td>9700</td>
<td>7.70Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires*

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTR55/M3</td>
<td>55 Watt TC-L M3</td>
<td>575</td>
<td>7.15Kg</td>
</tr>
<tr>
<td>LTR224/M3</td>
<td>2 x 24 Watt T5 M3</td>
<td>430</td>
<td>6.85Kg</td>
</tr>
<tr>
<td>LTR240/M3</td>
<td>2 x 40 Watt TC-L M3</td>
<td>450</td>
<td>7.05Kg</td>
</tr>
<tr>
<td>LTR255/M3</td>
<td>2 x 55 Watt TC-L M3</td>
<td>575</td>
<td>8.75Kg</td>
</tr>
</tbody>
</table>

* Reverts to one lamp in emergency mode

Features
- High performance high frequency gear as standard
- Powder coated white gloss steel body
- Perforated steel diffuser enhances direct/indirect light distribution
- All versions are available with integral BSI approved emergency control gear
- Suitable for 15-24mm exposed T ceiling systems
- Ideal for use in offices, reception areas and conference rooms

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/DALI DALI emergency control gear
/ST Digital self-test luminaire

Specification

Body
White gloss powder coated sheet steel

Louvre
Perforated steel louvre

Control Gear
All control gear is mounted directly onto the luminaire body

Charger LED
Constant current with green LED for mains healthy and connected battery

Lamps
40 Watt or 55 Watt TC-L compact fluorescent or 24 Watt T5 fluorescent lamps (not supplied)

Dimensions
Length 595mm x Width 595mm x Depth 95mm (minimum ceiling void)

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

IP20
Louviers

Recessed 4 lamp T5 luminaire with category 2 louvre

Features
- High performance high frequency gear as standard
- Powder coated white gloss steel body and highly efficient polished specular double parabolic louvre
- All versions are available with integral BSI approved emergency control gear
- Impressive 4 lamp linear T5 distribution
- Slim profile allows easier installation with limited ceiling voids
- Suitable for 15-24mm exposed T ceiling systems
- Ideal for use in offices, conference rooms and most commercial applications

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/DALI DALI emergency control gear
/ST Digital self-test luminaire

Specification
Body
White gloss powder coated sheet steel
Louvre
Semi-specular double parabolic louvre
Control Gear
All control gear is mounted directly onto the luminaire body
Charger LED
Constant current with green LED for mains healthy and connected battery
Lamps
14 Watt or 28 Watt T5 fluorescent lamps (not supplied)

Dimensions
14 Watt Luminaire Dimensions
Length 595mm x Width 595mm x Depth 61mm (minimum ceiling void)
28 Watt Luminaire Dimensions
Length 1195mm x Width 595mm x Depth 61mm (minimum ceiling void)

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOU414/HF</td>
<td>4 x 14 Watt T5 mains</td>
<td>4800</td>
<td>3.60Kg</td>
</tr>
<tr>
<td>LOU428/HF</td>
<td>4 x 28 Watt T5 mains</td>
<td>10400</td>
<td>7.20Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires*

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOU414/M3</td>
<td>4 x 14 Watt T5 M3</td>
<td>140</td>
<td>4.50Kg</td>
</tr>
<tr>
<td>LOU428/M3</td>
<td>4 x 28 Watt T5 M3</td>
<td>650</td>
<td>8.40Kg</td>
</tr>
</tbody>
</table>

* Reverts to one lamp in emergency mode

IP20
Modra

Surface mounted twin T8 luminaire with category 2 louvre

**Features**
- High performance high frequency gear as standard
- Steel body with white semi-gloss steel body
- Highly efficient double parabolic aluminium louvre
- All versions are available with integral BSI approved emergency control gear
- Suitable for surface mounting or suspension
- Quick release clips and retaining straps for louvre simplifies maintenance
- Ideal for use in offices, conference rooms and general commercial use

**Options**
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/DALI DALI emergency control gear
/ST Digital self-test luminaire

**Specification**

**Body**
White gloss powder coated sheet steel

**Louvre**
Semi-specular double parabolic louvre

**Control Gear**
All control gear is mounted directly onto the luminaire body

**Charger LED**
Constant current with green LED for mains healthy and connected battery

**Lamps**
36 Watt, 58 Watt or 70 Watt T8 fluorescent lamps (not supplied)

**Dimensions**

**36 Watt T8 Luminaire Dimensions**
Length 1280mm x Width 331mm x Depth 65mm

**58 Watt T8 Luminaire Dimensions**
Length 1580mm x Width 331mm x Depth 65mm

**70 Watt T8 Luminaire Dimensions**
Length 1880mm x Width 331mm x Depth 65mm

**Technical Information**
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from [www.orbik.co.uk](http://www.orbik.co.uk)

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### Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOD236/HF</td>
<td>2 x 36 Watt T8 mains</td>
<td>6700</td>
<td>6.85Kg</td>
</tr>
<tr>
<td>MOD258/HF</td>
<td>2 x 58 Watt T8 mains</td>
<td>10400</td>
<td>8.25Kg</td>
</tr>
<tr>
<td>MOD270/HF</td>
<td>2 x 70 Watt T8 mains</td>
<td>12400</td>
<td>9.25Kg</td>
</tr>
</tbody>
</table>

### Emergency Luminaires*

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOD236/M3</td>
<td>2 x 36 Watt T8 M3</td>
<td>260</td>
<td>7.65Kg</td>
</tr>
<tr>
<td>MOD258/M3</td>
<td>2 x 58 Watt T8 M3</td>
<td>520</td>
<td>9.20Kg</td>
</tr>
<tr>
<td>MOD270/M3</td>
<td>2 x 70 Watt T8 M3</td>
<td>430</td>
<td>10.30Kg</td>
</tr>
</tbody>
</table>

*Reverts to one lamp in emergency mode
Features
- Attractive shallow design
- High performance high frequency gear as standard
- Steel body with white semi-gloss finish
- Highly efficient double parabolic aluminium louvre
- All versions are available with integral BSI approved emergency control gear
- Suitable for surface mounting or suspension
- Quick release clips and retaining straps for louvre simplifies maintenance
- Ideal for use in classrooms, offices and general commercial use

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/DALI DALI dimmable control gear
/ST Digital self-test luminaire

Specification
Body
White gloss powder coated sheet steel
Louvre
Semi-specular double parabolic louvre
Control Gear
All control gear is mounted directly onto the luminaire body
Charger LED
Constant current with green LED for mains healthy and connected battery
Lamps
28 Watt, 35 Watt, 49 Watt or 54 Watt T5 fluorescent lamps (not supplied)

Dimensions
28 Watt & 54 Watt Luminaire Dimensions
Length 1231mm x Width 333mm x Depth 55mm
35 Watt & 49 Watt Luminaire Dimensions
Length 1531mm x Width 333mm x Depth 55mm

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Luminaires
<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>MON228/HF</td>
<td>2 x 28 Watt T5 mains</td>
<td>5200</td>
<td>6.05Kg</td>
</tr>
<tr>
<td>MON235/HF</td>
<td>2 x 35 Watt T5 mains</td>
<td>6600</td>
<td>7.45Kg</td>
</tr>
<tr>
<td>MON249/HF</td>
<td>2 x 49 Watt T5 mains</td>
<td>8600</td>
<td>7.65Kg</td>
</tr>
<tr>
<td>MON254/HF</td>
<td>2 x 54 Watt T5 mains</td>
<td>8900</td>
<td>7.65Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires*
<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>MON228/M3</td>
<td>2 x 28 Watt T5 M3</td>
<td>650</td>
<td>7.10Kg</td>
</tr>
<tr>
<td>MON235/M3</td>
<td>2 x 35 Watt T5 M3</td>
<td>890</td>
<td>8.85Kg</td>
</tr>
<tr>
<td>MON249/M3</td>
<td>2 x 49 Watt T5 M3</td>
<td>860</td>
<td>9.05Kg</td>
</tr>
<tr>
<td>MON254/M3</td>
<td>2 x 54 Watt T5 M3</td>
<td>760</td>
<td>9.05Kg</td>
</tr>
</tbody>
</table>

* Reverts to one lamp in emergency mode.
Neath

Attractive surface mounted T5 luminaire with controller

Features
- Elegant design
- High performance high frequency gear as standard
- Steel body with white gloss finish with polycarbonate end-caps
- Quality UV stabilised clear reeded polycarbonate controller
- All versions are available with integral BSI approved emergency control gear
- Suitable for surface mounting or suspension
- DALI dimmable, intelligent addressable and digital self-test versions available to order
- Ideal for use in schools, colleges, offices and public sector buildings

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/DALI DALI emergency control gear
/ST Digital self-test luminaire

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEA35/HF</td>
<td>35 Watt T5 mains</td>
<td>3300</td>
<td>3.50Kg</td>
</tr>
<tr>
<td>NEA49/HF</td>
<td>49 Watt T5 mains</td>
<td>4300</td>
<td>3.50Kg</td>
</tr>
<tr>
<td>NEA54/HF</td>
<td>54 Watt T5 mains</td>
<td>4450</td>
<td>3.50Kg</td>
</tr>
<tr>
<td>NEA228/HF</td>
<td>2 x 28 Watt T5 mains</td>
<td>5200</td>
<td>3.50Kg</td>
</tr>
<tr>
<td>NEA235/HF</td>
<td>2 x 35 Watt T5 mains</td>
<td>6600</td>
<td>3.70Kg</td>
</tr>
<tr>
<td>NEA249/HF</td>
<td>2 x 49 Watt T5 mains</td>
<td>8600</td>
<td>3.70Kg</td>
</tr>
<tr>
<td>NE/LED</td>
<td>LED mains standard output</td>
<td>1440</td>
<td>3.50Kg</td>
</tr>
<tr>
<td>NE/LED/H</td>
<td>LED mains high output</td>
<td>2880</td>
<td>3.50Kg</td>
</tr>
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</table>

Emergency Luminaires*

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEA35/M3</td>
<td>35 Watt T5 M3</td>
<td>890</td>
<td>5.00Kg</td>
</tr>
<tr>
<td>NEA49/M3</td>
<td>49 Watt T5 M3</td>
<td>860</td>
<td>5.00Kg</td>
</tr>
<tr>
<td>NEA228/M3</td>
<td>2 x 28 Watt T5 M3</td>
<td>890</td>
<td>4.60Kg</td>
</tr>
<tr>
<td>NEA235/M3</td>
<td>2 x 35 Watt T5 M3</td>
<td>860</td>
<td>5.20Kg</td>
</tr>
<tr>
<td>NEA249/M3</td>
<td>2 x 49 Watt T5 M3</td>
<td>760</td>
<td>5.20Kg</td>
</tr>
<tr>
<td>NE/LED/M3</td>
<td>LED M3 standard output</td>
<td>250</td>
<td>5.00Kg</td>
</tr>
<tr>
<td>NE/LED/M3/H</td>
<td>LED M3 high output</td>
<td>500</td>
<td>5.00Kg</td>
</tr>
</tbody>
</table>

* Reverts to one lamp in emergency mode

Specifiation

Body
White powder coated sheet steel with polycarbonate end caps

Diffuser
Flame retardant polycarbonate

Control Gear
All control gear is mounted directly onto the luminaire body

Charger LED
Constant current with green LED for mains healthy and connected battery

Lamps
28 Watt, 35 Watt or 49 Watt T5 fluorescent lamps (not supplied)
LED’s
0.2W high lumen/watt LED

Dimensions
28 Watt, 54 Watt & LED Luminaire Dimensions
Length 1194mm x Width 172mm x Depth 53mm
35 Watt & 49 Watt Luminaire Dimensions
Length 1494mm x Width 172mm x Depth 53mm

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

IP43
Features
- Robust white powder coated steel body
- Independent switching circuits give the option of switching off two lamps in mains operation offering potential power savings
- High performance high frequency gear as standard
- Optional wire guard and polycarbonate cover provides additional protection in areas where damage may occur
- Polished aluminium reflectors provide broad light distribution
- Suitable for chain suspension, light trunking and BESA fixings
- All versions are available with integral BSI approved emergency control gear
- Controlled optical performance giving impressive and superior spacing data
- Ideal for use in factories, car show rooms, sports halls and warehouses

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/CP Clear polycarbonate diffuser
/DALI DALI emergency control gear
/NR Narrow light distribution (T5 lamps only)
/ST Digital self-test luminaire
/WG Wire guard

Specification
Body
Sheet steel with white gloss powder coated finish
Reflector
Polished aluminium
Charger LED
Constant current with green LED for mains healthy and connected battery
Lamps
55 Watt or 80 Watt TC-L compact fluorescent lamps, 54 Watt or 80 Watt T5 fluorescent lamps (not supplied)

Dimensions
55 Watt & 80 Watt Standard Output Versions (Mains & Emergency)
Length 900mm x Width 605mm x Depth 100mm
54 Watt Standard Output Versions (Mains)
Length 1330mm x Width 510mm x Depth 92mm
80 Watt Standard Output Versions (Mains)
Length 1630mm x Width 510mm x Depth 92mm
80 Watt Standard Output Versions (Emergency)
Length 1730mm x Width 510mm x Depth 92mm
54 Watt & 55 Watt Economy Output Versions (Mains & Emergency)
Length 1320mm x Width 464mm x Depth 104mm
80 Watt Standard Output Versions (Mains & Emergency)
Length 1620mm x Width 464mm x Depth 104mm

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR455</td>
<td>4 x 55 Watt TC-L mains standard output</td>
<td>19400</td>
<td>11.50Kg</td>
</tr>
<tr>
<td>OR455/ECO</td>
<td>4 x 55 Watt TC-L mains economy output</td>
<td>19400</td>
<td>11.50Kg</td>
</tr>
<tr>
<td>OR480</td>
<td>4 x 80 Watt TC-L mains standard output</td>
<td>24600</td>
<td>11.50Kg</td>
</tr>
<tr>
<td>OR454/T5</td>
<td>4 x 54 Watt T5 mains standard output</td>
<td>17800</td>
<td>12.50Kg</td>
</tr>
<tr>
<td>OR454/T5/ECO</td>
<td>4 x 54 Watt economy T5 mains economy output</td>
<td>17800</td>
<td>12.50Kg</td>
</tr>
<tr>
<td>OR480/T5</td>
<td>4 x 80 Watt T5 mains standard output</td>
<td>24600</td>
<td>13.75Kg</td>
</tr>
<tr>
<td>OR480/T5/ECO</td>
<td>4 x 80 Watt economy T5 mains economy output</td>
<td>24600</td>
<td>13.75Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR455/M3</td>
<td>4 x 55 Watt TC-L M3 standard output</td>
<td>1034</td>
<td>17.00Kg</td>
</tr>
<tr>
<td>OR455/M3/ECO</td>
<td>4 x 55 Watt economy TC-L M3 economy output</td>
<td>1034</td>
<td>17.00Kg</td>
</tr>
<tr>
<td>OR480/M3</td>
<td>4 x 80 Watt TC-L M3 standard output</td>
<td>1020</td>
<td>17.00Kg</td>
</tr>
<tr>
<td>OR454/T5/M3</td>
<td>4 x 54 Watt T5 M3 standard output</td>
<td>760</td>
<td>15.10Kg</td>
</tr>
<tr>
<td>OR454/T5/M3/ECO</td>
<td>4 x 54 Watt economy T5 M3 economy output</td>
<td>760</td>
<td>15.10Kg</td>
</tr>
<tr>
<td>OR480/T5/M3</td>
<td>4 x 80 Watt T5 M3 standard output</td>
<td>615</td>
<td>16.30Kg</td>
</tr>
<tr>
<td>OR480/T5/M3/ECO</td>
<td>4 x 80 Watt economy T5 M3 economy output</td>
<td>615</td>
<td>16.30Kg</td>
</tr>
</tbody>
</table>

* Reverts to one lamp in emergency mode
Retail.

A range of mains and emergency luminaires ideal for use in shops, hotels and many other retail and display applications.
Calabor

Fully recessed interior luminaire or exit sign

Features
- Available in white finish as standard, with polished brass and chrome finishes available as options
- Supplied as a fully recessed luminaire as standard, but can be transformed into an attractive recessed exit sign with the use of an edge-lit pla-stil-glas flame retardant legend panel
- Robust, galvanised rear body requires a ceiling depth of only 90mm
- Hinged, removable steel gear tray facilitates easy fixing and maintenance
- Ideal for use in offices, retail outlets and reception areas

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/BR Brass finish
/CH Chrome finish
/DALI DALI emergency control gear
/EX Single-sided exit version
/EX/D Double-sided exit version
/HF High frequency ballast
/O Opal diffuser
/ST Digital self-test luminaire

Specification
Body
Galvanised steel rear enclosure with sheet steel fascia

Diffuser
Prismatic polycarbonate diffuser (opal polycarbonate diffuser available as an option)

Legend Panel
Flame retardant polycarbonate

Gear Tray
Sheet steel gear tray

Charger LED
Constant current with green LED for mains healthy and connected battery

Lamps
8 Watt T5 fluorescent lamps are supplied complete with the luminaire

LED’s
25W chip-on-board LED

Dimensions
Luminaire Dimensions
Length 410mm x Width 155mm x Depth 90mm

Exit Sign Dimensions
Length 410mm x Width 155mm x Overall Depth 250mm (legend panel is 160mm below the ceiling)

Cut-Out Dimensions
Length 325mm x Width 130mm (minimum ceiling void of 90mm required)

Viewing Distance
32 Metres (when supplied with edge-lit legend panel)

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAL1X8</td>
<td>8 Watt mains</td>
<td>400</td>
<td>2.20Kg</td>
</tr>
<tr>
<td>CAL/LED</td>
<td>LED mains</td>
<td>360</td>
<td>2.20Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAL8/NM3/E</td>
<td>8W NM3 economy output</td>
<td>80</td>
<td>2.70Kg</td>
</tr>
<tr>
<td>CAL8/NM3</td>
<td>8W NM3 standard output</td>
<td>120</td>
<td>2.70Kg</td>
</tr>
<tr>
<td>CAL8/NM3/H</td>
<td>8W NM3 high output</td>
<td>180</td>
<td>2.70Kg</td>
</tr>
<tr>
<td>CAL8/M3/E</td>
<td>8W M3 economy output</td>
<td>80</td>
<td>2.90Kg</td>
</tr>
<tr>
<td>CAL8/M3</td>
<td>8W M3 standard output</td>
<td>120</td>
<td>2.90Kg</td>
</tr>
<tr>
<td>CAL8/M3/H</td>
<td>8W M3 high output</td>
<td>180</td>
<td>2.90Kg</td>
</tr>
<tr>
<td>CAL2X8/NM3</td>
<td>2 x 8W NM3 economy output</td>
<td>240</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>CAL2X8/NM3/H</td>
<td>2 x 8W NM3 standard output</td>
<td>360</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>CAL/LED/M3</td>
<td>LED NM3/M3</td>
<td>125</td>
<td>2.20Kg</td>
</tr>
</tbody>
</table>

Slave Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAL8/#D</td>
<td>8 Watt slave bulkhead</td>
<td>275</td>
<td>2.10Kg</td>
</tr>
<tr>
<td>CAL/LED/#D</td>
<td>LED slave bulkhead</td>
<td>125</td>
<td>2.10Kg</td>
</tr>
</tbody>
</table>

For fluorescent versions replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts, for LED versions replace # with AC/DC system Voltage 110 or 230 Volts.
Chella

Stylish recessed polycarbonate luminaire or exit sign

Features
- Versatile range includes mains, emergency and slave versions, with addressable and self-testing options also available
- Supplied as a fully recessed luminaire as standard, but can be transformed into an attractive recessed exit sign with the use of an edge-lit plasiglas legend panel
- Effective light-pipe design enabling the emergency charge LED indicator to be clearly visible
- Hinged, removable steel gear tray facilitates easy fixing and maintenance
- Ideal for use in offices, retail outlets and reception areas

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/DALI DALI emergency control gear
/EX Single-sided exit version (ingress rating IP20)
/EX/D Double-sided exit version (ingress rating IP20)
/HF High frequency ballast
/ST Digital self-test luminaire

Specification
Body
Flame retardant polycarbonate with white finish
Diffuser
Clear flame retardant polycarbonate
Gear Tray
Sheet steel gear tray
Charger LED
Constant current with green LED for mains healthy and connected battery
Lamps
8 Watt T5 fluorescent or 11 Watt TC-S compact fluorescent (CHE11)
LED's
0.2W high lumen/watt LED

Dimensions
Luminaire Dimensions
Length 380mm x Width 150mm x Depth 80mm
Exit Sign Dimensions
Length 380mm x Width 150mm x Overall Depth 250mm (legend panel is 160mm below the ceiling)
Cut-Out Dimensions
Length 335mm x Width 107mm (when used with CAD/WH semi-recessing kit)
Viewing Distance
24 Metres (when supplied with edge-lit legend panel)

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk
* Third party approval applied for.

Mains Luminaires
<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE1X8</td>
<td>8 Watt mains</td>
<td>400</td>
<td>1.00Kg</td>
</tr>
<tr>
<td>CHE/LED</td>
<td>LED mains</td>
<td>360</td>
<td>1.00Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires
<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE8/NM3/E</td>
<td>8W NM3 economy output</td>
<td>80</td>
<td>1.50Kg</td>
</tr>
<tr>
<td>CHE8/NM3</td>
<td>8W NM3 standard output</td>
<td>120</td>
<td>1.50Kg</td>
</tr>
<tr>
<td>CHE8/NM3/H</td>
<td>8W NM3 high output</td>
<td>180</td>
<td>1.50Kg</td>
</tr>
<tr>
<td>CHE8/M3/E</td>
<td>8W M3 economy output</td>
<td>80</td>
<td>1.80Kg</td>
</tr>
<tr>
<td>CHE8/M3</td>
<td>8W M3 standard output</td>
<td>120</td>
<td>1.80Kg</td>
</tr>
<tr>
<td>CHE8/M3/H</td>
<td>8W M3 high output</td>
<td>180</td>
<td>1.80Kg</td>
</tr>
<tr>
<td>CHE2X8/NM3/E</td>
<td>2 x 8W NM3 economy output</td>
<td>120</td>
<td>1.55Kg</td>
</tr>
<tr>
<td>CHE2X8/NM3</td>
<td>2 x 8W NM3 standard output</td>
<td>240</td>
<td>1.55Kg</td>
</tr>
<tr>
<td>CHE/LED/M3</td>
<td>LED M3</td>
<td>125</td>
<td>1.80Kg</td>
</tr>
</tbody>
</table>

Slave Luminaires
<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE8/#D</td>
<td>8 Watt slave</td>
<td>275</td>
<td>1.00Kg</td>
</tr>
<tr>
<td>CHE/LED/#D</td>
<td>LED slave</td>
<td>125</td>
<td>1.30Kg</td>
</tr>
</tbody>
</table>

For fluorescent versions replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts; for LED versions replace # with AC/DC system Voltage 110 or 230 Volts

For fluorescent versions replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts; for LED versions replace # with AC/DC system Voltage 110 or 230 Volts

IP20/44  🌐  ⌚  ⚠  CE

KM31508
Features

- Comprehensive range including downlights, tiltable downlights and shower lights
- Available in white finish as standard with brass, chrome and satin chrome finishes available as options
- Robust diecast housing
- Twist-and-lock retaining bezel for ease of lamp removal
- Supplied with a fixed and shrouded 3 way terminal block
- Fire tested and approved to a 90 minute rating to BS476 Part2/1987
- Acoustically tested and approved to BSEN150 140-3 1995 and BSEN150 140-6 1998 respectively
- Ideal for use in hotels, retail outlets and domestic dwellings

Options

For emergency options please refer to page 79

Specification

Body
Diecast outer ring and body

Lamps
GU10 LED lamps (not supplied)

Dimensions

Downlight Dimensions
Ø Length 92mm (cut-out 74mm)

Titable Downlight Dimensions
Ø Length 105mm (cut-out 85mm)

Shower Light Dimensions
Ø Length 105mm (cut-out 85mm)

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>DU/WH</td>
<td>White GU10 downlight</td>
<td>0.38Kg</td>
</tr>
<tr>
<td>DU/BR</td>
<td>Brass GU10 downlight</td>
<td>0.38Kg</td>
</tr>
<tr>
<td>DU/CH</td>
<td>Chrome GU10 downlight</td>
<td>0.38Kg</td>
</tr>
<tr>
<td>DU/SC</td>
<td>Satin chrome GU10 downlight</td>
<td>0.38Kg</td>
</tr>
<tr>
<td>DU/TD/WH</td>
<td>White GU10 tiltable downlight</td>
<td>0.40Kg</td>
</tr>
<tr>
<td>DU/TD/BR</td>
<td>Brass GU10 tiltable downlight</td>
<td>0.40Kg</td>
</tr>
<tr>
<td>DU/TD/CH</td>
<td>Chrome GU10 tiltable downlight</td>
<td>0.40Kg</td>
</tr>
<tr>
<td>DU/TD/SC</td>
<td>Satin chrome GU10 tiltable downlight</td>
<td>0.40Kg</td>
</tr>
<tr>
<td>DU/SL/WH</td>
<td>White GU10 IP65 shower light (35W lamp only)</td>
<td>0.40Kg</td>
</tr>
<tr>
<td>DU/SL/BR</td>
<td>Brass GU10 IP65 shower light (35W lamp only)</td>
<td>0.40Kg</td>
</tr>
<tr>
<td>DU/SL/CH</td>
<td>Chrome GU10 IP65 shower light (35W lamp only)</td>
<td>0.40Kg</td>
</tr>
<tr>
<td>DU/SL/SC</td>
<td>Satin chrome GU10 IP65 shower light (35W lamp only)</td>
<td>0.40Kg</td>
</tr>
</tbody>
</table>

Dual in white finish

Dual in brass finish

Dual in satin-chrome finish

Dual in chrome finish
Dyode

Unique fully-recessed LED luminaire

Features
- 50mm diameter
- Superbly designed refractor lens assembly
- Specially developed LED driver and advanced thermal engineering techniques reduce LED operating temperatures
- LED life exceeds 50,000 hours
- LED self-test versions available
- Emergency versions utilise Nickel Metal Hydride battery packs
- Supplied as an open area version but corridor versions to illuminate centre lines of escape are available as an option
- Emergency packs can easily pass through a 40mm ceiling cut-out
- Ideal for use in hotels, retail outlets and reception areas
- Unique optical design to optimise the light distribution for emergency lighting applications

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/CR Corridor version
/H High output version (not available with self-test facility)
/ST Digital self-test luminaire

Specification
Body
850°C hot-wire compliant polycarbonate

Diffuser
850°C hot-wire compliant polycarbonate

Charger LED
Constant current with green LED for mains healthy and connected battery

Sleeving
Silicone coated woven glass fibre (temperature range -60°C to +250°C)

LED's
3W high lumen/watt LED

Dimensions
Luminaire Dimensions
Ø 50mm x Depth 32mm (22m above ceiling)

Emergency Pack Dimensions
Ø 75mm x Length 190mm

Cut-Out Dimension
Ø 40mm

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumen</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>DY/LED/230A/OA</td>
<td>LED open area mains</td>
<td>85</td>
<td>0.1Kg</td>
</tr>
<tr>
<td>DY/LED/230A/OA/H</td>
<td>LED high output mains</td>
<td>140</td>
<td>0.1Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumen</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>DY/LED/NM3/OA</td>
<td>LED open area NM3</td>
<td>85</td>
<td>0.1Kg</td>
</tr>
<tr>
<td>DY/LED/NM3/OA/H</td>
<td>LED high output NM3</td>
<td>140</td>
<td>0.1Kg</td>
</tr>
<tr>
<td>DY/LED/M3/OA</td>
<td>LED open area M3</td>
<td>85</td>
<td>0.1Kg</td>
</tr>
<tr>
<td>DY/LED/M3/OA/H</td>
<td>LED high output M3</td>
<td>140</td>
<td>0.1Kg</td>
</tr>
</tbody>
</table>

Slave Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumen</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>DY/LED/#D/OA</td>
<td>LED open area slave</td>
<td>85</td>
<td>0.1Kg</td>
</tr>
</tbody>
</table>

Replace # with AC/DC system Voltage 110 or 230 Volts
Features
- Seamless design to blend into any lighting scheme
- Specially developed LED driver
- High quality LEDs with extended life expectancy
- Refractor lens provides efficient light distribution pattern
- LED self-test versions conform to the requirements of BS EN62034:2006
- Emergency versions utilise Nickel Metal Hydride battery packs
- Supplied as an open area version but corridor versions to illuminate centre lines of escape are available as an option
- Wide range of options available including cold store versions, surface trims and semi-recessing kits
- High output versions give a light output equivalent to a 16W 2D fluorescent lamp
- Ideal for use in hotels, retail outlets and reception areas

Options
Add suffix to catalogue number:
/30°C Cold store version (suitable to ambients down to -30°C)
/BR Brass surface trim (excluding high output versions)
/CH Chrome surface trim (excluding high output versions)
/CR Corridor version
/O Opal diffuser
/R Semi-recessing kit
/ST Digital self-test luminaire
/WH White surface trim (excluding high output versions)

Specification
Body
850°C hot-wire compliant polycarbonate
Diffuser
850°C hot-wire compliant polycarbonate
Charger LED
Constant current with green LED for mains healthy and connected battery
Sleeving
Silicone coated woven glass fibre (temperature range -60°C to +250°C)
LED’s
3W high lumen/watt LED

Dimensions
Luminaire Dimensions
Ø 120mm x Depth 67mm (35mm above ceiling)
Emergency Pack Dimensions
Ø 75mm x Length 190mm
Cut-Out Dimension
Ø 100mm

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Luminaires
<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELL/LED/230A/OA</td>
<td>LED open area mains</td>
<td>45</td>
<td>0.50Kg</td>
</tr>
<tr>
<td>ELL/LED/230A/OA/H *</td>
<td>LED corridor mains</td>
<td>1150</td>
<td>0.50Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires
<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELL/LED/NM3/OA</td>
<td>LED open area NM3</td>
<td>45</td>
<td>0.50Kg</td>
</tr>
<tr>
<td>ELL/LED/NM3/OA/H *</td>
<td>LED open area NM3 high output</td>
<td>50</td>
<td>0.50Kg</td>
</tr>
</tbody>
</table>

Slave Luminaires
<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELL/LED/#D/OA</td>
<td>LED open area slave</td>
<td>45</td>
<td>0.50Kg</td>
</tr>
<tr>
<td>ELL/LED/#D/CR</td>
<td>LED corridor slave</td>
<td>45</td>
<td>0.50Kg</td>
</tr>
</tbody>
</table>

* High output versions have external control gear and are not suitable for surface mounting.
Replace # with AC/DC system Voltage 110 or 230 volts.
Geneva

Stylish recessed luminaire or exit sign

**Features**
- Available in white finish as standard, with brass and chrome finishes available as options
- Supplied as a fully recessed luminaire as standard, but can be transformed into an attractive recessed exit sign with the use of an edge-lit plasiglas legend panel
- Can be supplied as an 8 Watt fluorescent or LED luminaire
- LED versions offer a long life of up to 50,000 hours
- Prismatic lens controller ensures optimised light distribution
- Ideal for use in hotels, conference centres and retail shopping centres
- High frequency control gear as standard

**Options**
Add suffix to catalogue number:
- /BR Brass finish
- /CH Chrome finish
- /EX Single-sided exit version
- /EX/D Double-sided exit version

**Specification**

**Body**
Galvanised steel rear enclosure with sheet steel fascia

**Diffuser**
Prismatic polycarbonate diffuser

**Gear Tray**
Sheet steel gear tray

**Charger LED**
Constant current with green LED for mains healthy and connected battery

**Legend Panel**
Flame retardant plasiglas

**Lamps**
8 Watt T5 fluorescent lamps are supplied complete with the luminaire (fluorescent versions only)

LED’s
5 x 0.2W high lumen/watt LED (125 lumens/watt)

**Dimensions**

**Luminaire Dimensions**
Length 360mm x Width 90mm x Depth 80mm

**Exit Sign Dimensions**
Length 360mm x Width 90mm x Overall Depth 240mm (legend panel is 160mm below the ceiling)

**Cut-Out Dimensions**
Length 325mm x Width 80mm (minimum ceiling void of 80mm required)

**Viewing Distance**
24 Metres (when supplied with edge-lit legend panel)

**Technical Information**
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

**Emergency Luminaires**

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>GN8/NM3</td>
<td>8W NM3 white</td>
<td>120</td>
<td>1.20Kg</td>
</tr>
<tr>
<td>GN8/M3</td>
<td>8W M3 white</td>
<td>120</td>
<td>1.50Kg</td>
</tr>
<tr>
<td>GN/LED/M3</td>
<td>LED M3 white</td>
<td>125</td>
<td>1.50Kg</td>
</tr>
</tbody>
</table>

**Slave Luminaires**

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>GN8/#D</td>
<td>8 Watt slave white</td>
<td>275</td>
<td>1.20Kg</td>
</tr>
<tr>
<td>GN/LED/#D</td>
<td>LED slave bulkhead</td>
<td>125</td>
<td>1.20Kg</td>
</tr>
</tbody>
</table>

For fluorescent versions replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts; for LED versions replace # with AC/DC system Voltage 110 or 230 Volts.
Mead

Attractive recessed LED luminaire with dome diffuser

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/DALI DALI emergency control gear
/PR Prismatic diffuser
/ST Digital self-test luminaire

Specification
Body
Sheet steel with white finish powder coated finish

Diffuser
Domed opal or clear prismatic polycarbonate as standard

Gear Tray
Sheet steel gear tray

Charger LED
Constant current with green LED for mains healthy and connected battery

LED's
Standard output versions use 81 x 0.2W LED array; high output versions use 121 x 0.2W LED array

Dimensions
Luminaire Dimensions
Ø 330mm x Depth 80mm

Cut-Out Dimension
Ø 305mm x Depth 85mm

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEA/LED</td>
<td>LED mains standard output</td>
<td>2050</td>
<td>1.80Kg</td>
</tr>
<tr>
<td>MEA/LED/H</td>
<td>LED mains high output</td>
<td>2850</td>
<td>1.80Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEA/LED/M3</td>
<td>LED M3 standard output</td>
<td>107</td>
<td>2.70Kg</td>
</tr>
<tr>
<td>MEA/LED/M3/H</td>
<td>LED M3 high output</td>
<td>107</td>
<td>2.70Kg</td>
</tr>
</tbody>
</table>

Slave Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEA/LED/#D</td>
<td>LED slave standard output</td>
<td>107</td>
<td>1.80Kg</td>
</tr>
<tr>
<td>MEA/LED/#D/H</td>
<td>LED slave high output</td>
<td>107</td>
<td>1.80Kg</td>
</tr>
</tbody>
</table>

Replace # with AC/DC system Voltage 110 or 230 Volts.
Meled

Attractive shallow LED downlight

Features

- Shallow die-cast aluminium body for enhanced thermal dissipation
- Spring fixing clips providing quick installation
- High quality LED driver for impressive uniform LED light distribution
- Mains and emergency versions available
- Colour temperature 3200k (1275 lumen mains output)
- Compact white body with attractive opal cover
- Ideal for use in hotels, retail outlets and general circulation areas

Specifi cation

Body
 Die-cast aluminium body with white powder-coated finish

Cover
 Opal glass cover

LED Driver
 LED driver is external to luminaire

Charger LED
 Constant current with green LED for mains healthy and connected battery

Emergency Pack
 Silicone coated woven glass fi bre sleeving

LED’s
 0.2W high lumen/watt LED

Dimensions

Luminaire Dimensions
 Ø 200mm x Depth 35mm

Cut-Out Dimensions
 Ø 175mm x Depth 35mm (minimum ceiling void)

Emergency Train Dimensions
 Length 740mm x Cut-Out 60mm

Technical Information
 Photometric data and further lighting design information, including luminaire data fi les, are available from our technical department or from www.orbik.co.uk

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEL/LED</td>
<td>LED mains</td>
<td>1275</td>
<td>1.00Kg</td>
</tr>
</tbody>
</table>

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEL/LED/M3</td>
<td>LED M3</td>
<td>630</td>
<td>2.50Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires

IP20 V CE
**Features**
- Comprehensive range supported by a wide range of options provide solutions to many interior applications
- High performance high frequency gear as standard
- LED versions incorporate high quality LED's for extended life expectancy
- Unique design enhances thermal dissipation and excellent performance
- All versions are available with integral BSI approved emergency control gear
- Mains, emergency and slave options
- Can be supplied in single or twin lamp versions
- Ideal for use in retail outlets, washrooms, corridors and general circulation areas

**Options**
Add suffix to catalogue number:
- /AD Intelligent addressable luminaire
- /L+ Drop legend version
- /ST Digital self-test luminaire

Replace + with either L16, L17, L18, L19 or L20 legend panel

**Trim Options**
Supplied with white trim as standard, for alternative colour finish add suffix to catalogue number:
- /MU/BR Brass trim
- /MU/CH Chrome trim

**Drop Glass Options**
Supplied with white trim as standard, for drop glass options add suffix to catalogue number:
- /DG/BR Drop glass with brass trim
- /DG/CH Drop glass with chrome trim
- /DG/WH Drop glass with white trim

**IP44 Cover Options**
Supplied with white trim as standard, for IP44 cover options add suffix to catalogue number:
- /IP/BR IP44 cover with brass trim
- /IP/CH IP44 cover with chrome trim
- /IP/WH IP44 cover with white trim

**Specifications**

**Trim**
Metal trim with white finish as standard (see options for trim /cover variants)

**Spinning**
Polished aluminium reflector

**Control Gear Box**
Polycarbonate gear box (mains only versions); emergency versions consist of the polycarbonate mains gear box plus an additional sheet steel gear box

**Charger LED**
Constant current with green LED for mains healthy and connected battery

**Lamps**
- 18 Watt or 26 Watt TC-D compact fluorescent lamps or 32 Watt or 42 Watt TC-T compact fluorescent lamps (not supplied)
- LED's
  - 25W chip-on-board LED

**Dimensions**

<table>
<thead>
<tr>
<th>Luminaire Dimensions</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 226mm x Depth 198mm (minimum ceiling void)</td>
<td>1150</td>
<td>2.42Kg</td>
</tr>
<tr>
<td>Ø 226mm x Overall Depth 218mm (drop glass is 20mm below the ceiling)</td>
<td>2300</td>
<td>3.25Kg</td>
</tr>
<tr>
<td>Ø 226mm x Overall Depth 318mm (legend panel is 120mm below the ceiling)</td>
<td>1800</td>
<td>2.42Kg</td>
</tr>
<tr>
<td>Ø 208mm x Depth 198mm (minimum ceiling void)</td>
<td>3600</td>
<td>3.25Kg</td>
</tr>
<tr>
<td>Ø 208mm x Overall Depth 198mm (minimum ceiling void)</td>
<td>2200</td>
<td>2.28Kg</td>
</tr>
<tr>
<td>Ø 208mm x Overall Depth 218mm (drop glass is 20mm below the ceiling)</td>
<td>4400</td>
<td>2.36Kg</td>
</tr>
<tr>
<td>Ø 208mm x Overall Depth 318mm (legend panel is 120mm below the ceiling)</td>
<td>3200</td>
<td>3.25Kg</td>
</tr>
<tr>
<td>18 metres (when supplied with drop legend)</td>
<td>6400</td>
<td>3.25Kg</td>
</tr>
<tr>
<td>18 metres (when supplied with drop legend)</td>
<td>1630</td>
<td>1.60Kg</td>
</tr>
</tbody>
</table>

**Emergency Luminaires †**

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>MU18/M3</td>
<td>18 Watt TC-D M3</td>
<td>276</td>
<td>2.42Kg</td>
</tr>
<tr>
<td>MU218/M3*</td>
<td>2 x 18 Watt TC-D M3</td>
<td>276</td>
<td>3.25Kg</td>
</tr>
<tr>
<td>MU26/M3</td>
<td>26 Watt TC-D M3</td>
<td>324</td>
<td>2.42Kg</td>
</tr>
<tr>
<td>MU226/M3*</td>
<td>2 x 26 Watt TC-D M3</td>
<td>324</td>
<td>3.25Kg</td>
</tr>
<tr>
<td>MU32/M3</td>
<td>32 Watt TC-T M3</td>
<td>480</td>
<td>2.28Kg</td>
</tr>
<tr>
<td>MU232/M3*</td>
<td>2 x 32 Watt TC-T M3</td>
<td>480</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>MU42/M3</td>
<td>42 Watt TC-T M3</td>
<td>416</td>
<td>3.25Kg</td>
</tr>
<tr>
<td>MU242/M3*</td>
<td>2 x 42 Watt TC-T M3</td>
<td>416</td>
<td>3.40Kg</td>
</tr>
<tr>
<td>MU/LED/M3</td>
<td>LED M3</td>
<td>350</td>
<td>2.80Kg</td>
</tr>
</tbody>
</table>

† Weights do not include remote emergency gear box, add 2.1Kg to each product
* Reverts to one lamp in emergency mode

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**For all Legend details See Page 27**
Amenity.
A collection of mains and emergency luminaires to provide style, efficiency and practicality to a wide range of lighting applications.
Features
- UV stabilised, flame retardant polycarbonate used in each Ecos enclosure
- Sealed to IP65 as standard
- Clear radial lens for enhanced photometric performance
- Versions available with 2D fluorescent lamps, compact fluorescent lamps, T5 circular lamps and long-life LED’s
- Wide range of options including intelligent addressable and self-testing luminaires
- Optional microwave presence detectors can be integrally fitted within the luminaire
- Can be supplied with a semi-recessing trim lending it to anti-ligature applications
- Ideal for use in police and magistrates cells, military establishments, schools and public areas

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/BK Black base
/DALI DALI emergency control gear
/ECR/WH White semi-recessing trim
/HF High frequency ballast
/MD Microwave presence detector
/O Opal diffuser
/ST Digital self-testing luminaire
/T5 Push-to-test switch
/VR Anti-tamper screws

Specification
Body
Flame retardant polycarbonate
Diffuser
Flame retardant polycarbonate
Charger LED
Constant current with green LED for mains healthy and connected battery
Lamps
28W and 38W 2D fluorescent; 18W TC-L compact fluorescent; 40W TC-F compact fluorescent; 22W and 40W T5 circular fluorescent
LED’s
48 x 0.2W high lumen/watt LED (economy output versions)
81 x 0.2W high lumen/watt LED (standard output versions)
121 x 0.2W high lumen/watt LED (high output versions)

Dimensions
Luminaire Dimensions
Ø 397mm x Width 132mm
Dimensions with Semi-Recessing Trim
Ø 406mm x Width 86mm (minimum 46mm ceiling void required)
Cut-Out Dimension
Ø 395mm

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Ecos with white base and clear diffuser

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC28</td>
<td>28W 2D mains</td>
<td>2050</td>
<td>2.80Kg</td>
</tr>
<tr>
<td>EC38</td>
<td>38W 2D mains</td>
<td>2850</td>
<td>2.80Kg</td>
</tr>
<tr>
<td>EC/LED/E</td>
<td>LED mains (16W equivalent)</td>
<td>1150</td>
<td>2.80Kg</td>
</tr>
<tr>
<td>EC/LED/M3</td>
<td>LED mains (28W equivalent)</td>
<td>2050</td>
<td>2.80Kg</td>
</tr>
<tr>
<td>EC/LED/H</td>
<td>LED mains (38W equivalent)</td>
<td>2850</td>
<td>2.80Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC28/M3</td>
<td>28W 2D M3</td>
<td>270</td>
<td>3.10Kg</td>
</tr>
<tr>
<td>EC38/M3</td>
<td>38W 2D M3</td>
<td>625</td>
<td>3.10Kg</td>
</tr>
<tr>
<td>EC/LED/E</td>
<td>LED M3 (16W equivalent)</td>
<td>107</td>
<td>3.10Kg</td>
</tr>
<tr>
<td>EC/LED/M3</td>
<td>LED M3 (28W equivalent)</td>
<td>107</td>
<td>3.10Kg</td>
</tr>
<tr>
<td>EC/LED/H</td>
<td>LED M3 (38W equivalent)</td>
<td>107</td>
<td>3.10Kg</td>
</tr>
</tbody>
</table>

Slave Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC28/PVR/24</td>
<td>28W 2D mains/slave</td>
<td>500</td>
<td>2.90Kg</td>
</tr>
<tr>
<td>EC38/PVR/24</td>
<td>28W 2D mains/slave</td>
<td>500</td>
<td>2.90Kg</td>
</tr>
</tbody>
</table>

Replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts.
Holt

Rugged IP65 square luminaire

Features
- Tough, all-polycarbonate housing
- Wide range of options available to suit specific requirements
- Screw-fixing diffuser located with brass threaded inserts
- Hinged steel gear tray, rearbesa and side conduit entries
- Supplied with a white base and prismatic diffuser as standard with an opal diffuser and black base available as options
- Ideal for use in stairwells, car parks and walkways

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/BK Black base
/DALI DALI emergency control gear
/HF High frequency ballast
/MD Microwave presence detector
/O Opal diffuser
/R Semi-recessing trim
/ST Digital self-test luminaire
/VR Anti-tamper screws

Specifcation
Body
Flame retardant polycarbonate with white finish (black polycarbonate base available as an option)
Diffuser
Flame retardant clear prismatic polycarbonate as standard (opal polycarbonate diffuser available as an option)
Gear Tray
Sheet steel gear tray
Charger LED
Constant current with green LED for mains healthy and connected battery
Lamps
Either 16 Watt or 28 Watt 2D fluorescent, 11 Watt TC-S and 4W T5 fluorescent lamps are supplied complete with the luminaire

Dimensions
Luminaire Dimensions
Length 255mm x Width 255mm x Depth 90mm

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Luminaires
<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>HT16B</td>
<td>16 Watt 2D mains</td>
<td>2050</td>
<td>1.10Kg</td>
</tr>
<tr>
<td>HT28B</td>
<td>28 Watt 2D mains</td>
<td>2850</td>
<td>1.10Kg</td>
</tr>
<tr>
<td>HT211B</td>
<td>2 x 11 Watt TC-S mains</td>
<td>1800</td>
<td>2.00Kg</td>
</tr>
<tr>
<td>HT/LED/E</td>
<td>LED mains economy output</td>
<td>1150</td>
<td>1.10Kg</td>
</tr>
<tr>
<td>HT/LED</td>
<td>LED mains standard output</td>
<td>2050</td>
<td>1.10Kg</td>
</tr>
<tr>
<td>HT/LED/H</td>
<td>LED mains high output</td>
<td>2850</td>
<td>1.10Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires
<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>HT16B/M3</td>
<td>16 Watt 2D M3</td>
<td>200</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>HT28B/M3</td>
<td>28 Watt 2D M3</td>
<td>270</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>HT28B/24/C3</td>
<td>28 Watt mains + 2 x 4W T5 NM3</td>
<td>160</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>HT211B/M3</td>
<td>2 x 11 Watt TC-S M3</td>
<td>180</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>HT/LED/M3</td>
<td>LED M3 standard output</td>
<td>107</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>HT/LED/M3/H</td>
<td>LED M3 high output</td>
<td>107</td>
<td>3.00Kg</td>
</tr>
</tbody>
</table>

Slave Luminaires
<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>HT16B/#D</td>
<td>16 Watt 2D slave</td>
<td>400</td>
<td>1.10Kg</td>
</tr>
<tr>
<td>HT28B/#D</td>
<td>28 Watt 2D slave</td>
<td>500</td>
<td>1.50Kg</td>
</tr>
</tbody>
</table>

Replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts.
Idro in black

Robust and attractive circular aluminium die-cast IP65 bulkhead

Idro in silver-grey

Idro in black with eyelid option

Features
- Robust IP65 die-cast housing available in black finish as standard, with silver-grey finish as an option
- Can be wall or ceiling mounted and suitable for exterior applications
- Wide range of options including an anti-vandal guard and anti-light pollution eyelid
- Supplied with anti-tamper screws as standard
- Fluorescent and LED versions available in mains and emergency mode
- Toughened polycarbonate diffuser
- Ideal for use in car parks and building perimeters

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/DALI DALI emergency control gear
/EY Anti-light pollution eyelid version
/HF High frequency ballast
/SG Silver-grey finish
/ST Digital self-test luminaire

Specification
Body
Aluminium die-cast in black finish (silver-grey finish available as an option)

Diffuser
Flame retardant opal polycarbonate diffuser

Gear Tray
Sheet steel gear tray

Charger LED
Constant current with green LED for mains healthy and connected battery

Lamps
Either 28 Watt or 38 Watt 2D fluorescent, or 11 Watt TC-S compact fluorescent lamps are supplied complete with the luminaire

LED's
Standard output version - 81 x 0.2W high lumen/watt LED
High output version - 121 x 0.2W high lumen/watt LED

Dimensions
Ø 360mm x Depth 130mm

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDR28</td>
<td>28 Watt 2D mains</td>
<td>2050</td>
<td>6.00Kg</td>
</tr>
<tr>
<td>IDR38</td>
<td>38 Watt 2D mains</td>
<td>2850</td>
<td>6.00Kg</td>
</tr>
<tr>
<td>IDR/LED</td>
<td>LED mains standard output</td>
<td>2050</td>
<td>6.00Kg</td>
</tr>
<tr>
<td>IDR/LED/H</td>
<td>LED mains high output</td>
<td>2850</td>
<td>6.00Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDR28/M3</td>
<td>28 Watt 2D M3</td>
<td>270</td>
<td>7.00Kg</td>
</tr>
<tr>
<td>IDR38/M3</td>
<td>38 Watt 2D M3</td>
<td>625</td>
<td>7.00Kg</td>
</tr>
<tr>
<td>IDR211B/M3</td>
<td>2 x 11 Watt TC-S M3 (1 lamp in emergency)</td>
<td>390</td>
<td>7.00Kg</td>
</tr>
<tr>
<td>IDR/LED/M3</td>
<td>LEDM3 standard output</td>
<td>107</td>
<td>7.00Kg</td>
</tr>
<tr>
<td>IDR/LED/M3/H</td>
<td>LED M3 high output</td>
<td>107</td>
<td>7.00Kg</td>
</tr>
</tbody>
</table>

For fluorescent versions replace # with AC/DC system Voltage: 24, 50, 110 or 230 Volts; for LED versions replace # with AC/DC system Voltage: 110 or 230 Volts.
Robust and attractive square aluminium die-cast IP65 bulkhead

**Features**
- Robust IP65 die-cast housing available in black finish as standard, with silver-grey finish as an option
- Suitable for most exterior applications
- Anti-vandal guard and anti-light pollution eyelid available as options
- Can be wall or ceiling mounted
- Fluorescent and LED versions available in mains and emergency mode
- Toughened polycarbonate diffuser and anti-tamper screws as standard
- Ideal for use in building perimeters and car parks

**Options**
Add suffix to catalogue number:
- /AD Intelligent addressable luminaire
- /DALI DALI emergency control gear
- /EY Anti-light pollution eyelid version
- /GU Anti-vandal guard version
- /HF High frequency ballast
- /SG Silver-grey finish
- /ST Digital self-test luminaire

**Specification**

**Body**
Aluminium die-cast in black finish (silver-grey finish available as an option)

**Diffuser**
Opal polycarbonate diffuser

**Gear Tray**
Sheet steel gear tray

**Charger LED**
Constant current with green LED for mains healthy and connected battery

**Lamps**
Either 28 Watt or 38 Watt 2D fluorescent, or 11 Watt TC-S compact fluorescent lamps are supplied complete with the luminaire

**LED’s**
- Standard output version - 81 x 0.2W LED
- High output version - 121 x 0.2W LED

**Dimensions**
Length 360mm x Width 360mm x Depth 125mm

For fluorescent versions replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts; for LED versions replace # with AC/DC system Voltage 110 or 230 Volts.

**Technical Information**
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk
Circular surface or semi-recessed IP54 luminaire

**Features**
- White all-polycarbonate housing
- Available in 2D fluorescent, compact fluorescent and LED versions
- Attractive surface trims available in white, polished brass and polished chrome finishes
- Can be ceiling or wall mounted
- Twist-and-lock diffuser for simple installation and maintenance
- Wide range of options include intelligent addressable and digital self-test luminaires
- Ideal for use in stairwells, corridors, toilets and changing rooms

**Options**
Add suffix to catalogue number:
- /AD Intelligent addressable luminaire
- /DALI DALI emergency control gear
- /HF High frequency ballast
- /KN/BR Brass surface trim
- /KN/CH Chrome surface trim
- /KN/WH White surface trim
- /MD Microwave presence detector
- /R Semi-recessing trim
- /ST Digital self-test luminaire

**Specification**

**Body**
Flame retardant polycarbonate with white finish

**Diffuser**
Flame retardant opal polycarbonate as standard (clear flame retardant polycarbonate diffuser available as an option)

**Gear Tray**
Sheet steel gear tray

**Charger LED**
Constant current with green LED for mains healthy and connected battery

**Lamps**
Either 28 Watt or 38 Watt 2D fluorescent and are supplied complete with the luminaire

**LED's**
Standard output version - 81 x 0.2W LED
High output version - 121 x 0.2W LED

**Dimensions**

**Luminaire Dimensions**
Ø 360mm x Depth 85mm

**Cut-Out Dimensions**
Ø 335mm (minimum 50mm ceiling void required)

**Technical Information**
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from [www.orbik.co.uk](http://www.orbik.co.uk)

---

**Mains Luminaires**

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>KN28</td>
<td>28 Watt 2D mains</td>
<td>2050</td>
<td>0.50Kg</td>
</tr>
<tr>
<td>KN38</td>
<td>38 Watt 2D mains</td>
<td>2850</td>
<td>0.50Kg</td>
</tr>
<tr>
<td>KN/LED</td>
<td>LED mains standard output</td>
<td>2050</td>
<td>0.50Kg</td>
</tr>
<tr>
<td>KN/LED/H</td>
<td>LED mains high output</td>
<td>2850</td>
<td>0.50Kg</td>
</tr>
</tbody>
</table>

**Emergency Luminaires**

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>KN28/NM3</td>
<td>28 Watt 2D NM3</td>
<td>280</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>KN28/M3</td>
<td>28 Watt 2D M3</td>
<td>280</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>KN28/24/C3</td>
<td>28 Watt mains + 2 x 4W T5 NM3</td>
<td>160</td>
<td>2.70Kg</td>
</tr>
<tr>
<td>KN/LED/M3</td>
<td>LED M3 standard output</td>
<td>107</td>
<td>2.90Kg</td>
</tr>
<tr>
<td>KN/LED/M3/H</td>
<td>LED M3 high output</td>
<td>107</td>
<td>2.70Kg</td>
</tr>
</tbody>
</table>

**Slave Luminaires**

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>KN28/#D</td>
<td>28 Watt 2D slave</td>
<td>650</td>
<td>2.30Kg</td>
</tr>
<tr>
<td>KN38/#D</td>
<td>38 Watt 2D slave</td>
<td>650</td>
<td>2.30Kg</td>
</tr>
</tbody>
</table>

Replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts.
Stylish circular LED drum luminaire

Kerriled

Features
- Spun sheet steel base with white powder coated finish supplied with an opal or prismatic domed diffuser as standard
- Available in mains, emergency and slave options
- Supplied with high quality LED’s for extended life
- Luminaire options include intelligent addressable control gear and microwave presence detectors
- Removable gear tray and centre besa entry for ease of installation
- Standard 28W equivalent output with high output 38W equivalent available as an option
- Ideal for use in foyers, corridors and stairwells

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/DALI DALI emergency control gear
/MD Microwave presence detector
/ST Digital self-test luminaire
/WS Wire suspension kit

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>KER/LED</td>
<td>LED mains standard output</td>
<td>2050</td>
<td>2.10Kg</td>
</tr>
<tr>
<td>KEH/LED/B</td>
<td>LED mains high output</td>
<td>2850</td>
<td>2.10Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>KER/LED/M3</td>
<td>LED M3 standard output</td>
<td>107</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>KEH/LED/M3/H</td>
<td>LED M3 high output</td>
<td>107</td>
<td>3.00Kg</td>
</tr>
</tbody>
</table>

Slave Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>KER/LED/#D</td>
<td>LED slave standard output</td>
<td>107</td>
<td>2.10Kg</td>
</tr>
<tr>
<td>KER/LED/#D/H</td>
<td>LED slave high output</td>
<td>107</td>
<td>2.10Kg</td>
</tr>
</tbody>
</table>

Specification

Body
Spun steel body with white powder coated finish

Diffuser
Flame retardant polycarbonate opal or prismatic diffuser

Gear Tray
Sheet steel gear tray

Charger LED
Constant current with green LED for mains healthy and connected battery

LED’s
Standard output version - 81 x 0.2W LED
High output version - 121 x 0.2W LED

Dimensions
Ø 430mm x Depth 75mm

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Replace # with AC/DC system Voltage 110 or 230 Volts.
Features
- Spun steel base containing control gear and energy saving LED's or fluorescent lamp
- Available in 3 diameter sizes; 330mm, 430mm and 525mm
- Supplied with white finish as standard with brass and chrome available as options
- Available as mains, emergency and slave options
- Supplied with an opal diffuser as standard with a clear prismatic diffuser as an option
- Wide range of options include intelligent addressable and digital self-test luminaires
- Ideal for use in foyers, corridors and stairwells

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/BR Brass finish
/CH Chrome diffuser
/DALI DALI emergency control gear
/HF High frequency ballast
/PR Prismatic diffuser
/ST Digital self-test luminaire

Specification
Body
Spun steel with white epoxy coated finish as standard brass or chrome plated finish available as options

Diffuser
Opal polycarbonate as standard (prismatic polycarbonate diffuser available as an option)

Charger LED
Constant current with green LED for mains healthy and connected battery

Lamps
Either 16 Watt, 28 Watt or 38 Watt 2D fluorescent; 26 Watt TC-D compact fluorescent; or 40 Watt or 55Watt T5c circular fluorescent lamps are supplied complete with the luminaire

LED's
Standard output version - 81 x 0.2W LED
High output version - 121 x 0.2W LED

Dimensions
Size A Dimensions
Ø 330mm x Depth 105mm
Size B Dimensions
Ø 430mm x Depth 105mm
Size C Dimensions
Ø 525mm x Depth 105mm

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAR16</td>
<td>16 Watt 2D mains size A</td>
<td>1050</td>
<td>1.10Kg</td>
</tr>
<tr>
<td>LAR28</td>
<td>28 Watt 2D mains size B</td>
<td>2050</td>
<td>2.10Kg</td>
</tr>
<tr>
<td>LAR38</td>
<td>38 Watt 2D mains size B</td>
<td>2850</td>
<td>2.10Kg</td>
</tr>
<tr>
<td>LAR40</td>
<td>40 Watt T5c circular mains size B</td>
<td>3500</td>
<td>2.60Kg</td>
</tr>
<tr>
<td>LAR226</td>
<td>2 x 26 Watt TC-D mains size C</td>
<td>3600</td>
<td>2.60Kg</td>
</tr>
<tr>
<td>LARSST5C</td>
<td>55 Watt T5c circular mains size C</td>
<td>4200</td>
<td>2.60Kg</td>
</tr>
<tr>
<td>LARM/LED</td>
<td>LED mains standard output size B</td>
<td>2050</td>
<td>2.10Kg</td>
</tr>
<tr>
<td>LARM/LED/H</td>
<td>LED mains high output size B</td>
<td>2850</td>
<td>2.10Kg</td>
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</table>

Emergency Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAR16/M3</td>
<td>16 Watt 2D M3 size A</td>
<td>200</td>
<td>2.70Kg</td>
</tr>
<tr>
<td>LAR28/M3</td>
<td>28 Watt 2D M3 size B</td>
<td>270</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>LAR38/M3</td>
<td>38 Watt 2D M3 size B</td>
<td>625</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>LAR40/M3</td>
<td>40 Watt T5c circular M3 size B</td>
<td>370</td>
<td>3.70Kg</td>
</tr>
<tr>
<td>LAR226/M3</td>
<td>2 x 26 Watt TC-D M3 size C</td>
<td>324</td>
<td>3.70Kg</td>
</tr>
<tr>
<td>LARSST5C/M3</td>
<td>55 Watt T5c circular M3 size C</td>
<td>530</td>
<td>3.70Kg</td>
</tr>
<tr>
<td>LARM/LED/M3</td>
<td>LED M3 standard output size B</td>
<td>107</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>LARM/LED/M3/H</td>
<td>LED M3 high output size B</td>
<td>107</td>
<td>3.00Kg</td>
</tr>
</tbody>
</table>

Slave Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAR16/#D</td>
<td>16 Watt 2D slave size A</td>
<td>400</td>
<td>1.10Kg</td>
</tr>
<tr>
<td>LAR28/#D</td>
<td>28 Watt 2D slave size B</td>
<td>500</td>
<td>2.00Kg</td>
</tr>
<tr>
<td>LAR38/#D</td>
<td>38 Watt 2D slave size B</td>
<td>500</td>
<td>2.00Kg</td>
</tr>
<tr>
<td>LAR40/#D</td>
<td>40 Watt T5c circular slave size B</td>
<td>990</td>
<td>2.00Kg</td>
</tr>
</tbody>
</table>

For fluorescent versions replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts. For LED versions replace # with AC/DC system Voltage 110 or 230 Volts.
Lavaine

Classically styled decorative luminaire

Features
- Classic styling consisting of a steel gallery with either polished brass or polished chrome finish and an opal glass diffuser
- Diffuser is held in place by 3 knuckle screws finished to match the gallery colour finish
- Simple installation and maintenance aided by the simple, screw-fixing diffuser and the gear being located directly onto the gallery, eradicating the need for separate, removable gear-trays
- Can be ceiling or wall mounted
- Options include intelligent addressable and digital self-test luminaires
- Ideal for use in churches, libraries, reception areas and most decorative applications

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/DALI DALI emergency control gear
/HF High frequency ballast
/ST Digital self-test luminaire

Specifiation
Body
Steel gallery with brass finish as standard (chrome finish available as an option)

Diffuser
Glass opal

Control Gear
All control gear is mounted directly onto the gallery (does not have a removable gear tray)

Charger LED
Constant current with green LED for mains healthy and connected battery

Lamps
28 Watt or 38 Watt 2D fluorescent lamps are supplied complete with the luminaire

Dimensions
Ø 390mm x Depth 180mm

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts.

Lavaine with brass finish

Lavaine with chrome finish

<table>
<thead>
<tr>
<th>Mains Luminaires</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LV28C/BR</td>
<td>28 Watt 2D mains brass finish</td>
<td>2050</td>
<td>4.60Kg</td>
</tr>
<tr>
<td>LV28C/CH</td>
<td>28 Watt 2D mains chrome finish</td>
<td>2050</td>
<td>4.60Kg</td>
</tr>
<tr>
<td>LV38C/BR</td>
<td>38 Watt 2D mains brass finish</td>
<td>2850</td>
<td>4.60Kg</td>
</tr>
<tr>
<td>LV38C/CH</td>
<td>38 Watt 2D mains chrome finish</td>
<td>2850</td>
<td>4.60Kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Emergency Luminaires</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LV28C/M3/BR</td>
<td>28 Watt 2D M3 brass finish</td>
<td>280</td>
<td>4.80Kg</td>
</tr>
<tr>
<td>LV28C/M3/CH</td>
<td>28 Watt 2D M3 chrome finish</td>
<td>280</td>
<td>4.80Kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Slave Luminaires</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LV28C/#D/BR</td>
<td>28 Watt 2D slave brass finish</td>
<td>500</td>
<td>3.80Kg</td>
</tr>
<tr>
<td>LV28C/#D/CH</td>
<td>28 Watt 2D slave chrome finish</td>
<td>500</td>
<td>3.80Kg</td>
</tr>
<tr>
<td>LV38C/#D/BR</td>
<td>38 Watt 2D slave brass finish</td>
<td>500</td>
<td>3.80Kg</td>
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<tr>
<td>LV38C/#D/CH</td>
<td>38 Watt 2D slave chrome finish</td>
<td>500</td>
<td>3.80Kg</td>
</tr>
</tbody>
</table>
Leah

Attractive and robust IP65 circular polycarbonate luminaire

Features
- Suitable for most interior and exterior applications
- Available in 2D fluorescent, compact fluorescent and LED versions
- Hinged steel gear tray and centre rear besa entry for ease of installation
- Optional elegant trims with an opal base create halo impressive diffused halo effects
- Can be semi-recessed when using the narrow version of the two optional trims
- Wide range of options including intelligent addressable and digital self-test luminaires
- Ideal for use in hotels, universities, shower areas and stairwells

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/DALI DALI emergency control gear
/HF High frequency ballast
/MD Microwave presence detector
/NT Narrow trim
/OP Opal halo effect base
/R Semi-recessing trim
/ST Digital self-test luminaire
/WT Wide trim

Specification
Body
Flame-retardant polycarbonate with white finish
Diffuser
Opal flame-retardant polycarbonate
Gear Tray
Sheet steel gear tray
Charger LED
Constant current with green LED for mains healthy and connected battery
Lamps
Either 28 Watt or 38 Watt 2D fluorescent, 11 Watt TC-S or 40 Watt T5c circular fluorescent lamps are supplied complete with the luminaire
LED's
Standard output version - 81 x 0.2W LED
High output version - 121 x 0.2W LED

Dimensions
Standard Luminaire Dimensions (without Trim)
Ø 395mm x Depth 120mm
Luminaire Dimensions with Narrow Trim
Ø 440mm x Depth 120mm
Luminaire Dimensions with Wide Trim
Ø 520mm x Depth 120mm
Cut-Out Dimensions
Ø 357mm

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LE28</td>
<td>28 Watt 2D mains</td>
<td>2050</td>
<td>2.70Kg</td>
</tr>
<tr>
<td>LE38</td>
<td>38 Watt 2D mains</td>
<td>2850</td>
<td>2.70Kg</td>
</tr>
<tr>
<td>LE40</td>
<td>40 Watt T5c circular mains</td>
<td>3500</td>
<td>2.70Kg</td>
</tr>
<tr>
<td>LE211</td>
<td>2 x 11 Watt TC-S mains</td>
<td>1800</td>
<td>2.70Kg</td>
</tr>
<tr>
<td>LE/LED</td>
<td>LED mains (28W equivalent)</td>
<td>2050</td>
<td>2.70Kg</td>
</tr>
<tr>
<td>LE/LED/H</td>
<td>LED mains (38W equivalent)</td>
<td>2850</td>
<td>2.70Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LE28/M3</td>
<td>28 Watt 2D M3</td>
<td>384</td>
<td>3.60Kg</td>
</tr>
<tr>
<td>LE38/M3</td>
<td>38 Watt 2D M3</td>
<td>625</td>
<td>3.60Kg</td>
</tr>
<tr>
<td>LE40/M3</td>
<td>40 Watt T5c circular M3</td>
<td>370</td>
<td>3.60Kg</td>
</tr>
<tr>
<td>LE211/M3</td>
<td>2 x 11 Watt TC-S M3 (1 lamp in emergency)</td>
<td>390</td>
<td>3.60Kg</td>
</tr>
<tr>
<td>LE/LED/M3</td>
<td>LED M3 (28W equivalent)</td>
<td>107</td>
<td>3.60Kg</td>
</tr>
<tr>
<td>LE/LED/M3/H</td>
<td>LED M3 (38W equivalent)</td>
<td>107</td>
<td>3.60Kg</td>
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</tbody>
</table>

Slave Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
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<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LE28/#D</td>
<td>28 Watt 2D slave</td>
<td>500</td>
<td>2.60Kg</td>
</tr>
<tr>
<td>LE38/#D</td>
<td>38 Watt 2D slave</td>
<td>500</td>
<td>2.60Kg</td>
</tr>
<tr>
<td>LE40/#D</td>
<td>40 Watt T5c circular slave</td>
<td>990</td>
<td>2.60Kg</td>
</tr>
<tr>
<td>LE211/#D</td>
<td>2 x 11 Watt TC-S slave</td>
<td>380</td>
<td>2.60Kg</td>
</tr>
</tbody>
</table>

Replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts.
Lens

Contemporary circular luminaire with a halo effect back light

Features
- Supplied as standard with an opal backlight and white straight-sided clip-on trim
- Available in 2D fluorescent and LED versions
- Elegant range of clip-on trims available to suit many applications
- Available in mains, emergency and slave versions
- Wide range of options include intelligent addressable and digital self-test luminaires
- Ideal for use in hotels, universities, stairwells and most decorative lighting applications

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/DALI DALI emergency control gear
/HF High frequency ballast
/MD Microwave presence detector
/ST Digital self-test luminaire

Metal Trim Options
Supplied with white straight-sided trim as standard, for other options add suffix to catalogue number:
/C/BR Brass curved trim
/C/CH Chrome curved trim
/C/GM Black chrome curved trim
/C/WH White curved trim
/S/BR Brass straight-sided trim
/S/CH Chrome straight-sided trim
/S/GM Black chrome straight-sided trim

Specification
Body
Flame-retardant polycarbonate with white finish
Diffuser
Opal flame-retardant polycarbonate
Trims
Metal trim with white finish as standard (brass, chrome and black chrome finishes available as options)
Gear Tray
Sheet steel gear tray
Charger LED
Constant current with green LED for mains healthy and connected battery
Lamps
Either 28 Watt or 38 Watt 2D fluorescent lamps are supplied complete with the luminaire
LEDs
Standard output version - 81 x 0.2W LED
High output version - 141 x 0.2W LED

Dimensions
Luminaire Dimensions (with straight-sided trim)
Ø 490mm x Depth 105mm
Luminaire Dimensions (with curved trim)
Ø 500mm x Depth 105mm
Luminaire Dimensions (with broad deluxe trim)
Ø 525mm x Depth 105mm

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LN28</td>
<td>28 Watt 2D mains</td>
<td>2050</td>
<td>2.70Kg</td>
</tr>
<tr>
<td>LN38</td>
<td>38 Watt 2D mains</td>
<td>2850</td>
<td>2.70Kg</td>
</tr>
<tr>
<td>LN/LED</td>
<td>LED mains (28W equivalent)</td>
<td>2050</td>
<td>2.70Kg</td>
</tr>
<tr>
<td>LN/LED/H</td>
<td>LED mains (38W equivalent)</td>
<td>2850</td>
<td>2.70Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LN28/M3</td>
<td>28 Watt 2D M3</td>
<td>384</td>
<td>3.60Kg</td>
</tr>
<tr>
<td>LN38/M3</td>
<td>38 Watt 2D M3</td>
<td>625</td>
<td>3.60Kg</td>
</tr>
<tr>
<td>LNA/LED/M3</td>
<td>LED M3 (28W equivalent)</td>
<td>107</td>
<td>3.60Kg</td>
</tr>
<tr>
<td>LNA/LED/M3/H</td>
<td>LED M3 (38W equivalent)</td>
<td>107</td>
<td>3.60Kg</td>
</tr>
</tbody>
</table>

Slave Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LN28/#D</td>
<td>28 Watt 2D slave</td>
<td>500</td>
<td>2.60Kg</td>
</tr>
<tr>
<td>LN38/#D</td>
<td>38 Watt 2D slave</td>
<td>500</td>
<td>2.60Kg</td>
</tr>
</tbody>
</table>

For fluorescent versions replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts; for LED versions replace # with AC/DC system Voltage 110 or 230 Volts.

IP20
Mezzina

IP65 circular polycarbonate utility luminaire

Features
- Robust screw-fit diffuser sealed to the luminaire body with a closed-cell neoprene gasket for durability
- Suitable for most interior and exterior applications
- Steel gear tray, centre rear besa entry and 20mm conduit knockouts at each end for ease of installation
- Can be wall or ceiling mounted
- Fluorescent and LED versions available in mains and emergency mode
- Supplied with white body and clear diffuser with technoradial lens technology as standard; black base and opal diffuser available as options
- Ideal for use in stairwells, walkways and car parks

Options
Add suffix to catalogue number:
/AD Intelligent addressable luminaire
/BK Black base
/DALI DALI emergency control gear
/HF High frequency ballast
/MD Microwave presence detector
/MZR/WH White semi-recessing trim
/O Opal diffuser
/ST Digital self-test luminaire
/VR Anti-tamper screws

Specification
Body
Flame retardant polycarbonate in white finish (black finish available as an option)

Diffuser
Clear polycarbonate diffuser (opal polycarbonate diffuser available as an option)

Gear Tray
Sheet steel gear tray

Charger LED
Constant current with green LED for mains healthy and connected battery

Lamps
Either 16 Watt, 28 Watt or 38 Watt 2D fluorescent, or 11 Watt TC-S compact fluorescent lamps are supplied complete with the luminaire

LEDs
Standard output version - 81 x 0.2W LED
High output version - 141 x 0.2W LED

Dimensions
Luminaire Dimensions
Ø 290mm x Depth 79mm
Luminaire Dimensions with Semi-Recessing Trim
Ø 345mm x Depth 50mm (below ceiling)
Cut-Out Dimensions
Ø 295mm

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>MZ16/3</td>
<td>16 Watt 2D mains</td>
<td>1050</td>
<td>1.10Kg</td>
</tr>
<tr>
<td>MZ28/3</td>
<td>28 Watt 2D mains</td>
<td>2050</td>
<td>1.10Kg</td>
</tr>
<tr>
<td>MZ38/HF</td>
<td>38 Watt 2D high frequency mains</td>
<td>2850</td>
<td>1.10Kg</td>
</tr>
<tr>
<td>MZ/LED28</td>
<td>LED mains (28W equivalent)</td>
<td>1200</td>
<td>1.10Kg</td>
</tr>
<tr>
<td>MZ/LED38</td>
<td>LED mains (38W equivalent)</td>
<td>2850</td>
<td>1.10Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>MZ16/M3</td>
<td>16 Watt 2D M3</td>
<td>200</td>
<td>2.70Kg</td>
</tr>
<tr>
<td>MZ28/M3</td>
<td>28 Watt 2D M3</td>
<td>270</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>MZ211/M3</td>
<td>2 x 11 Watt TC-S M3 (1 lamp in emergency)</td>
<td>1800</td>
<td>2.80Kg</td>
</tr>
<tr>
<td>MZ/LED/M8</td>
<td>LED mains (28W equivalent)</td>
<td>107</td>
<td>2.70Kg</td>
</tr>
<tr>
<td>MZ/LED/M8/H</td>
<td>LED mains (38W equivalent)</td>
<td>107</td>
<td>2.70Kg</td>
</tr>
</tbody>
</table>

Slave Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>MZ16/#D</td>
<td>16 Watt 2D slave</td>
<td>400</td>
<td>1.10Kg</td>
</tr>
<tr>
<td>MZ28/#D</td>
<td>28 Watt 2D slave</td>
<td>500</td>
<td>1.10Kg</td>
</tr>
</tbody>
</table>

Replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts.

61
Norton

IP54 cast aluminium bollard

Features
- Attractive aluminium body
- Strengthened detachable base plate for easy installation and accurate positioning
- Tamper proof corrosion resistant fixings
- Supplied in black finish as standard, with a silver-grey finish available as an option
- Optional J-Bolt fixing kit available for solid mounting
- Controlled light distribution via louvre stack
- E27 lamp holder versions can use compact fluorescent lamps up to a maximum of 32 Watts
- Ideal for use in car parks, amenity areas, paths, driveways and gardens

Options
Add suffix to catalogue number:
/JB J-Bolt fixing kit
/SG Silver grey finish

Specification
Body
Powder coated cast aluminium body with black finish (silver grey finish available as an option)

Reflector
Louversed polished aluminium anti-glare reflector

Diffuser
Acrylic glare-proof diffuser

Gear Tray
Sheet steel gear tray

Lamps
E27 lamps (up to 32 Watts maximum), 70W SON lamps or 70W HQI lamps (not supplied)

Dimensions
Luminaire Dimensions (500mm above Ground)
Ø 150mm x Depth 500mm

Luminaire Dimensions (750mm above Ground)
Ø 150mm x Depth 750mm

Luminaire Dimensions (1m above Ground)
Ø 150mm x Depth 1m

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOR500</td>
<td>E27 lamp holder (500mm above ground)</td>
<td>*</td>
<td>3.75Kg</td>
</tr>
<tr>
<td>NOR750</td>
<td>E27 lamp holder (750mm above ground)</td>
<td>*</td>
<td>4.25Kg</td>
</tr>
<tr>
<td>NOR1000</td>
<td>E27 lamp holder (1m above ground)</td>
<td>*</td>
<td>4.75Kg</td>
</tr>
<tr>
<td>NOR1000/70SON</td>
<td>70 Watt SON (1m above ground)</td>
<td>*</td>
<td>6.25Kg</td>
</tr>
<tr>
<td>NOR1000/70WHQI</td>
<td>70 Watt HQI (1m above ground)</td>
<td>*</td>
<td>6.25Kg</td>
</tr>
</tbody>
</table>

* Dependent on lamp used.
Industrial.

A range of luminaires to provide lighting solutions in demanding environments such as warehouses, factories and production areas.
IP65 LED floodlight range

**Features**
- High quality aluminium extruded body
- Supplied with toughened glass cover and tamper-proof screws
- Adjustable bracket supplied
- Symmetric light distribution
- High quality LED with extended lamp life
- Colour temperature 5500K as standard
- High quality integral driver
- Operating temperature between -40°C to +40°C
- Ideal for use in factories and warehouses

**Specification**

**Body**
Aluminium extruded body with black finish

**Cover**
Toughened glass cover

**LED’s**
50W, 70W and 140W LED array

**Dimensions**

**50W Versions**
Length 287mm x Width 237mm x Depth 156mm

**70W Versions**
Length 396mm x Width 280mm x Depth 287mm

**140W Versions**
Length 596mm x Width 280mm x Depth 210mm

**Technical Information**
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from [www.orbil.co.uk](http://www.orbil.co.uk)
Robust IP65 vandal-resistant wall-pack luminaire

Features
- Effective design offers maximum efficiency and reduced light pollution
- Available in 70 Watt HQI and LED mains versions
- LED versions available with integral BSI approved emergency gear
- Certified ingress protection to IP65
- Robust construction for a long service life
- Rear and side conduit entries to aid easy installation
- Ideal for use in tunnels, on pathways and building perimeters

Specification

Body
Polycarbonate body in black finish

Diffuser
Clear polycarbonate diffuser

Gear Tray
Sheet steel gear tray

Charger LED
Constant current with green LED for mains healthy and connected battery

Lamps
70 Watt HQI lamps (not supplied), 42W TC-T and LED

LED's
12W chip-on-board LED

Dimensions
Length 295mm x Width 265mm x Depth 185mm

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>JA70</td>
<td>70W HQI mains</td>
<td>5800</td>
<td>2.60Kg</td>
</tr>
<tr>
<td>JA/LED</td>
<td>LED mains</td>
<td>1780</td>
<td>2.40Kg</td>
</tr>
<tr>
<td>JA42</td>
<td>42W TC-T mains</td>
<td>3200</td>
<td>2.60Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Lumens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>JA/LED/M3</td>
<td>LED M3</td>
<td>500</td>
<td>3.60Kg</td>
</tr>
</tbody>
</table>
Emergency floodlighting unit

Features
- BSI approved constant Voltage charger fitted with thermal, current and short circuit protection devices
- Low Voltage disconnect circuit prevents batteries entering deep discharge state in the event of prolonged power failure
- Maintenance-free, 5 year life valve regulated lead acid batteries
- 21 Watt tungsten, 20 Watt and 55 Watt tungsten halogen versions are all available with 3 hours emergency back-up
- Deluxe version utilising 20 Watt and 50 Watt dichroic halogen lamps available for use in prestigious applications
- Swivel/tilt heads enable the client to tailor light distribution to highlight specific areas
- IP65 enclosures available
- Ideal for use in shopping centres, factories, warehouses and production areas

Options
Add suffix to catalogue number:
/3MTR Remote heads fitted on 3m loom (for use in cold store applications)
/AD Intelligent addressable luminaire (not available for ODS/DELUXE)
/IP65 IP65 weatherproof enclosure
/ST Digital self-test luminaire (not available for ODS/DELUXE)
/TM14 14 minute timer delay (for use with discharge lamp schemes)

Specification
Body
Mild sheet steel with light grey finish
Projectors
Tungsten versions have a polycarbonate lens and tungsten halogen versions have a glass lens
Charger LED
Constant current with green LED for mains healthy and connected battery
Lamps
12 Volt 21 Watt tungsten lamps or 12 Volt 20 Watt or 55 Watt tungsten halogen lamps are all supplied with the luminaire. ODS/DELUXE lamps are not supplied but use either 20 Watt (giving 3 hour emergency back-up) or 50 Watt dichroic halogen lamps (giving 1 hour emergency back-up)

Dimensions
Luminaire Dimensions
19 Watt NM3, 21 Watt NM3 & 55 Watt NM1 Versions) Length 315mm x Height 310mm x Depth 110mm
Luminaire Dimensions (55 Watt NM3 Versions) Length 320mm x Height 440mm x Depth 110mm
Luminaire Dimensions (IP65 Versions) Length 400mm x Height 440mm x Depth 135mm
Luminaire Dimensions (Deluxe Versions) Length 315mm x Height 200mm x Depth 75mm

Technical Information
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Emergency Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Luminens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODS20/NM3/TH</td>
<td>2 x 20 Watt Tungsten Halogen NM3</td>
<td>2 x 340</td>
<td>7.00Kg</td>
</tr>
<tr>
<td>ODS21/NM3</td>
<td>2 x 21 Watt Tungsten NM3</td>
<td>2 x 280</td>
<td>7.00Kg</td>
</tr>
<tr>
<td>ODS55/NM1/TH</td>
<td>2 x 55 Watt Tungsten Halogen NM1</td>
<td>2 x 900</td>
<td>7.50Kg</td>
</tr>
<tr>
<td>ODS55/NM3/TH*</td>
<td>2 x 55 Watt Tungsten Halogen NM3</td>
<td>2 x 900</td>
<td>16.00Kg</td>
</tr>
<tr>
<td>ODS55/NM3/TH*</td>
<td>Deluxe version (for use with Dichroic halogen lamps)</td>
<td>N/A</td>
<td>7.00Kg</td>
</tr>
</tbody>
</table>

Slaves Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Luminens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODS20/WD/TH</td>
<td>2 x 20 Watt Tungsten Halogen slave</td>
<td>2 x 340</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>ODS21/WD</td>
<td>2 x 21 Watt Tungsten slave</td>
<td>2 x 280</td>
<td>3.00Kg</td>
</tr>
<tr>
<td>ODS55/WD/TH</td>
<td>2 x 55 Watt Tungsten Halogen slave</td>
<td>2 x 900</td>
<td>3.00Kg</td>
</tr>
</tbody>
</table>

* Batteries for ODS55/NM3/TH are packed separately
† ODS/DELUXE lamps are not supplied but use either 20 Watt (giving 3 hour emergency back-up) or 50 Watt dichroic halogen lamps (giving 1 hour emergency back-up)
Features

- Can be surface mounted or suspended
- Mains versions are available with LED, compact fluorescent and HQI discharge light source
- Supplied with a high performance polycarbonate refractor as standard
- Additional light diffusion can be provided with optional lens covers
- Robust all polycarbonate gear housing
- Ideal for use in retail stores, car show rooms, production areas and warehouses

Options

Add suffix to catalogue number:
/LCA Lens cover size A (mains and emergency luminaires)
/LCB Lens cover size B
/SK Suspension kit

Specification

Body
Die-cast steel emergency body

Refractor/Lens Covers
Polycarbonate refractor and lens covers

Charger LED
Constant current with green LED for mains healthy and connected battery

Lamps
70 Watt, 150 Watt, 250 Watt or 400 Watt HQI discharge lamps, 42 Watt or 57 Watt TC-T compact fluorescent lamps or 120 Watt PL-H compact fluorescent lamps (not supplied)

LED's
25W chip-on-board LED

Mains Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Mains Luminens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>OLT242A</td>
<td>2 x 42 Watt TC-T mains size A</td>
<td>6400</td>
<td>4.00Kg</td>
</tr>
<tr>
<td>OLT70A</td>
<td>70 Watt HQI mains size A</td>
<td>5800</td>
<td>4.50Kg</td>
</tr>
<tr>
<td>OLT150A</td>
<td>150 Watt HQI mains size A</td>
<td>13000</td>
<td>8.00Kg</td>
</tr>
<tr>
<td>OLT250B</td>
<td>250 Watt HQI mains size B</td>
<td>20000</td>
<td>9.20Kg</td>
</tr>
<tr>
<td>OLT400B</td>
<td>400 Watt HQI mains size B</td>
<td>27000</td>
<td>10.80Kg</td>
</tr>
<tr>
<td>OLT/LED</td>
<td>LED mains size A</td>
<td>3650</td>
<td>4.00Kg</td>
</tr>
</tbody>
</table>

Emergency Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Lamp &amp; Mode</th>
<th>Emergency Luminens</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>OLT242A/M3*</td>
<td>2 x 42 Watt TC-T M3 emergency size A</td>
<td>580</td>
<td>5.80Kg</td>
</tr>
<tr>
<td>OLT/LED/M3</td>
<td>LED M3 emergency size A</td>
<td>620</td>
<td>5.80Kg</td>
</tr>
</tbody>
</table>

* Reverts to one lamp in emergency mode

Technical Information

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Our policy of continual product development and flexibility towards customer needs have enabled our products to be at the forefront of many prestigious installations throughout the UK and overseas.

Our highly automated manufacturing process, which includes metal fabrication and powder coating facilities, has been instrumental in developing sales on every continent.

By identifying and responding to individual customer’s specific requirements, we have quickly gained a reputation for being able to supply products that are not strictly “off the shelf” or from our already extensive product range. This has enabled us to become the first choice supplier to our large UK and International customer base.

Prestigious projects such as the HMS Court Service, City of Manchester Stadium (now Etihad Stadium), Salam Tunnel and Dubai Metro contained specialist criteria and began as an idea on paper that was developed, adapted, refined and crucially, delivered by Orbik.

Our service doesn’t end upon the delivery of products to the customer; our highly trained after-sales team are committed to ensuring that our customer’s requirements continue to be met through the commissioning and maintenance of specialist systems.

However unusual or difficult a project may appear, we will consider each enquiry on its own merits and offer advice and solutions to any potential issues within the application. This outlook has ensured that we have continued to work for and in partnership with our customers in order to strengthen and develop our relationships further.
Self-Contained Emergency Gear.

BSI approved emergency control gear incorporating revolutionary Perferm™ technology.
LED Modules

Emergency conversion modules to suit LED arrays

Features

- A range of conversion modules to enable single LED or multiple LED arrays to be operated in the event of a lighting circuit failure
- Available as low power options to operate a single source or low power array of LEDs at 3.6V 350mA - 800mA total
- Mid range power options to operate at 32V 120mA suitable for a wide range of LED arrays
- High power options to operate 60V 120mA suitable for wide range LED arrays
- Designed and manufactured to in accordance with the requirements of EN 61347-2-13
- Low power options available as maintained including the mains LED driver
- Mid and high power options with change over relay for use with external LED drivers
- Options available as self-test in accordance with the requirements of EN 62034

Emergency Luminaires

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Battery</th>
<th>Mode &amp; Duration</th>
<th>Min LED Voltage</th>
<th>Max Voltage Out</th>
<th>Max Constant LED Current</th>
<th>Max LED Wattage</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>LDY005</td>
<td>3 x 1.5Ah</td>
<td>Non-maintained 3 hours</td>
<td>-</td>
<td>3.6V</td>
<td>400mA</td>
<td>1.5W</td>
<td>A</td>
</tr>
<tr>
<td>LDY010</td>
<td>3 x 4Ah</td>
<td>Non-maintained 3 hours</td>
<td>-</td>
<td>3.6V</td>
<td>800mA</td>
<td>2.5W</td>
<td>C</td>
</tr>
<tr>
<td>LDY003</td>
<td>3 x 1.5Ah</td>
<td>Non-maintained 3 hours inc LED driver</td>
<td>-</td>
<td>3.6V</td>
<td>350mA</td>
<td>1W</td>
<td>B</td>
</tr>
<tr>
<td>LDY003/ST</td>
<td>3 x 1.5Ah</td>
<td>Maintained 3 hours inc self-test</td>
<td>-</td>
<td>3.6V</td>
<td>350mA</td>
<td>1W</td>
<td>B</td>
</tr>
<tr>
<td>LCM5125*</td>
<td>5 x 4Ah</td>
<td>Maintained 3 hours</td>
<td>8V</td>
<td>38V</td>
<td>120mA</td>
<td>-</td>
<td>D</td>
</tr>
<tr>
<td>LCM3350*</td>
<td>5 x 4Ah</td>
<td>Maintained 3 hours inc self-test</td>
<td>8V</td>
<td>32V</td>
<td>120mA</td>
<td>-</td>
<td>D</td>
</tr>
<tr>
<td>LCM10125*</td>
<td>10 x 4Ah</td>
<td>Maintained 3 hours</td>
<td>15V</td>
<td>60V</td>
<td>150mA</td>
<td>-</td>
<td>D</td>
</tr>
</tbody>
</table>

* Requires external mains LED driver.

Dimensions

Size A
Length 200mm x Width 30mm x Height 28mm (fixing centres 185mm)

Size B
Length 185mm x Width 30mm x Height 28mm (fixing centres 180mm)

Size C
Length 185mm x Width 30mm x Height 30mm (fixing centres 180mm)

Size D
Length 216mm x Width 42mm x Height 28mm (fixing centres 206mm)

Technical Information
Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk
Perferm™ Modules

Conversion modules suitable for low mercury dosage lamps

Perferm™ Technology

Lamp manufacturers are committed to reducing or eliminating the mercury used in fluorescent lamps to lessen the impact on the environment when these lamps require disposal at the end of their usable life. These actions are being driven in Europe by the WEEE and RoHS directives, which impose ever lower levels of the potentially hazardous mercury used in lamps.

To help combat some of the problems introduced by these lower mercury levels, including severely reduced life and blackening of the lamp cathodes in fluorescent lamps, Perferm™ modules employ enhanced lamp striking technology combined with a high level of continuous lamp cathode heating throughout the emergency operation period.

Features

- Removes ‘pink limbs’ on certain compact fluorescent lamps
- Combats severely reduced life or premature blackening of the lamp cathodes in all fluorescent lamps
- Enhanced lamp striking technology
- High level of continuous lamp cathode heating throughout the emergency duration
- Versions available to operate with both switch start and high frequency gear
- All Perferm™ modules are BSI Kitemarked
- Tested and approved to EN61347-2-7
- EMC compliant to EN55015 and CE marked where applicable
- Incorporates over temperature and charger short circuit protection
- Available as standard in 3 hours duration, with other durations available to order
- All modules have battery over discharge protection as standard (DDP) to prevent discharge below 1 Volt per cell
- Reverse battery polarity protected
- All modules are supplied with a green LED to indicate correct charging conditions

Technical Information

Further information is available from our technical department or from www.orbik.co.uk
Technical Specification

Self contained emergency gear conversion kits

Ballast lumen factors for control gear incorporating Perferm™ technology
(suitable for all lamps including low Mercury & Amalgam lamps)

<table>
<thead>
<tr>
<th>MODULE OPTIONS</th>
<th>BATTERY</th>
<th>T8</th>
<th>T5</th>
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<tbody>
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**Very Low Mercury Lamp Range**

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<th>PL-Q</th>
<th>PL-L</th>
<th>PL-S</th>
<th>PL-C</th>
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**Dimensions**

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<th>C</th>
<th>D</th>
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<td>336</td>
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<td>0.34</td>
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</table>
### Very Low Mercury Lamp Range

With the increased concern regarding the environmental impact of mercury on the environment, the lighting industry is constantly reducing the amount of mercury in fluorescent lamps. Typical levels are currently 3mg. However, there are some fluorescent lamps with levels of <1.5mg. Orbik Electronics has developed a range of products specifically aimed at these types of fluorescent lamps.

#### T5 CIRCULAR  2D  TC-L  TC-S/E  TC-D/E  TC-T/E AMALGAM

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</tbody>
</table>

- Perform™ technology is an ongoing development involving the latest lamp technology and as such is subject to change as and when further lamps/data become available.
- We strongly recommend that modules incorporating Perform™ technology are used in all emergency luminaires and conversions to provide the ultimate future proofing against lamp evolution.
- Most modules and PCB's are tested and approved to EN61347-2-7. They are EMC compliant to EN55015, CE marked where applicable and carry the British Standard Kitemark.
- They incorporate over temperature and charger short circuit protection.
- Mains supply 230V - 6% + 10% 50/60 Hz power consumption 8VA (other supply Voltages available on request).
- Output circuitry uses a high efficiency sinusoidal inverter, with nominal operating current of 1.1 Amps.
- Available as standard in 3 hour operation (other durations to order).
- All modules have battery over discharge protection as standard (DDP) to prevent discharge below 1 Volt per cell.
- Reverse battery polarity protected.
- All connections are via terminal blocks with a green light emitting diode (LED), to indicate correct charging conditions. All products are supplied with LED indicators.
- Operating temperature range module 0 to 70°C (centre side of case).
- Printed circuit boards 0 to 90°C (coil/core of charging transformer).
- All ballast lumen factors are shown as worst case.
- All figures are based on an ambient temperature of 25°C.

All figures quoted assume integral conversions.

Because of the variability of fluorescent lamps, this lamp and module compatibility chart is for guidance purposes only and does not cover all of the available lamp types. If you require information on lamps not shown in this table or connection diagrams for our conversion modules please refer to our website or contact our technical department on: technical@orbik.co.uk
Combined Module/Ballast

Combined mains ballast and emergency module

**Features**
- Incorporates Perferm™ technology to ensure optimum operation of low mercury and amalgam construction lamps from both ‘cold start’ and warm start applications
- The electronic ballast circuit has a lamp failure protection circuit to prevent damage occurring to the ballast when a lamp fails
- Sine-wave output in emergency prevents unpleasant visual lamp effects and ensures maximum lamp cathode lamp
- Advanced battery charging exploits energy absorption charging technology and reduces power losses in the unit
- Reverse polarity protected to provide stable charge conditions to maximise battery life

**Dimensions**
Length 130mm x Width 50mm x Depth 30mm (Weight 54g)

**Fixing Centres**
120mm along centre line

---

Remote Emergency Boxes

Pre-wired emergency control boxes for use adjacent to mains luminaire

**Features**
- All remote boxes incorporate BSI Kitemarked Perferm™ modules
- Ideal for use with compact luminaires where space is restricted
- Enhanced lamp striking technology
- High level of continuous lamp cathode heating throughout the emergency duration
- Can operate both switch start and high frequency gear
- Tested and approved to EN61347-2-7
- Eradicates over-heating and failure of luminaires due to lack of heat circulation where control gear is over-crowded
- Available as standard in 3 hours duration, with other durations available to order
- Battery over discharge protection as standard (DDP) to prevent discharge below 1 Volt per cell
- Reverse battery polarity protected
- All remote boxes are supplied with a green LED to indicate correct charging conditions
- Connection to the mains luminaire is by way of a simple flexible 0.5m flame-retardant loom
- Galvanised steel construction

---

**Cat No** | **Cells** | **16W 2D** | **Single 18W TC-D** | **22W TSC** | **Single 26W TC-D** | **28W 2D** | **36W TC-F** | **38W 2D** | **40W TSC**
---|---|---|---|---|---|---|---|---|---
MCP4100P3 | 3 x 4Ah | 15 | - | - | - | - | - | - | -
MCP4007P3 | 3 x 4Ah | - | 19 | - | 12 | - | - | - | -
MCP4099P3 | 4 x 4Ah | 21 | - | - | 18 | - | - | - | -
MCP4098P3 | 4 x 4Ah | - | 21 | 17 | - | 15 | - | - | -
MCP4101P3 | 5 x 4Ah | - | - | - | - | - | 10 | 13 | 12

---

**Size** | **Length** | **Width** | **Height**
---|---|---|---
Up to 3 cell | 290mm | 95mm | 40mm
Up to 5 cell | 425mm | 100mm | 45mm
Up to 10 cell | 430mm | 150mm | 50mm

**Ordering Information**
Prefer the required emergency module with RB, for example PL4003P3 becomes RBPL4003P3
6V & 12V DC Charger Board

PCB's to operate 12V tungsten halogen lamps in the event of a power failure

Features
- Tailored to give users full flexibility with their choice of housings, batteries and maintaining components
- BSI approved
- 10A terminal block on each PCB
- Suitable for use with control gear fitted in remote housings or twin-spot floodlighting units
- Available in maintained or non-maintained modes
- 10 to 100W lamp range

Dimensions
Length 147mm x Width 68mm x Depth 45mm

Fixing Centres
Length 135mm x Width 50mm

<table>
<thead>
<tr>
<th>Cat No.</th>
<th>Voltage</th>
<th>Outlets</th>
<th>Battery Type</th>
<th>Mode</th>
<th>Lamp Range</th>
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<tbody>
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<td>6V</td>
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<td>VRLA 25Ah max</td>
<td>NM3 or M3</td>
<td>10-100W</td>
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<tr>
<td>CB112</td>
<td>12V</td>
<td>2</td>
<td>VRLA 25Ah max</td>
<td>NM3 or M3</td>
<td>10-100W</td>
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</tbody>
</table>

Printed Circuit Boards

A range of printed circuit boards to suit self-contained luminaires

Features
- Cost-effective
- Approved to British/European standard EN60924/60925
- Available as standard in 3 hours duration (other durations available to order)
- Operating temperature range of 0 to 90°C (coil/core of charging transformer)
- Incorporates over temperature and charger short circuit protection
- All printed circuit boards are supplied complete with a green LED to indicate correct charging conditions

Dimensions
Length 123mm x Width 40mm x Depth 30mm (Weight 50g)

Fixing Centres
120mm along centre line
* Suitable for switch start circuits only

<table>
<thead>
<tr>
<th>Cat No.</th>
<th>Cells</th>
<th>Mode</th>
<th>4W T5</th>
<th>6W T5</th>
<th>7W TC-S</th>
<th>8W T5</th>
<th>9W TC-S</th>
<th>16W 2D</th>
<th>28W 2D</th>
<th>38W 2D</th>
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<td>NM3</td>
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<td>NM3</td>
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<td>13</td>
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</tbody>
</table>

75
Nickel Cadmium Batteries

Nickel Cadmium batteries for use with Perferm™ emergency modules

Features
- High quality, high temperature cells manufactured by World-class companies
- Graded to the demanding standards of IEC285
- When installed and operated in accordance with EN60598.2-22, the batteries meet the requirements for a 4 year life
- Many standard battery configurations are available but we can offer special configurations to assist in the layout of components within luminaires with restricted space
- 1.5Ah Nicad cells give 1 hour of emergency back-up, 4Ah cells give 3 hours of emergency back-up
- In-line versions are supplied with tag connections and dual in-line and plate versions are supplied with non-reversible plugs

Nickel Metal Hydride Batteries

Environmentally friendly alternative to Nickel Cadmium

Features
- Economic and practical alternative to Nickel Cadmium
- Kinder to the environment than Nickel Cadmium batteries
- Cheaper to dispose of at end of life
- Nickel Metal Hydride batteries have a better power density than Nickel Cadmium batteries
- Can be used in products where space is limited
- High temperature Nickel Metal Hydride batteries are particularly designed for emergency lighting applications, which some alternative battery technologies cannot provide
- Nickel Metal Hydride batteries have a lower cost and longer active life than Lithium batteries
- Nickel Metal Hydride battery technology is advancing all the time and therefore Nickel Metal Hydride is an investment into the future
### Standard Battery Formations

- **In-Line**
- **Plate (Side by Side)**
- **Dual In-Line**

### Technical Details

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<thead>
<tr>
<th>Cat No</th>
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<th>Battery Type</th>
<th>Battery Style</th>
<th>Duration</th>
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<th>Width B</th>
<th>Depth C</th>
<th>Fixing Centres</th>
<th>Weight</th>
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<td>Nickel Metal Hydride</td>
<td>In-Line</td>
<td>3 Hours</td>
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<td>20mm</td>
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<td>125mm</td>
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<td>25mm</td>
<td>113mm</td>
<td>0.10Kg</td>
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<td>Side by Side</td>
<td>3 Hours</td>
<td>65mm</td>
<td>72mm</td>
<td>36mm</td>
<td>-</td>
<td>0.28Kg</td>
</tr>
<tr>
<td>B165/315</td>
<td>3 x 1.5Ah</td>
<td>Nickel Cadmium</td>
<td>In-Line</td>
<td>1 Hour</td>
<td>167mm</td>
<td>27mm</td>
<td>25mm</td>
<td>155mm</td>
<td>0.15Kg</td>
</tr>
<tr>
<td>B166/3X4</td>
<td>3 x 4Ah</td>
<td>Nickel Cadmium</td>
<td>Plate</td>
<td>3 Hours</td>
<td>99mm</td>
<td>65mm</td>
<td>34mm</td>
<td>40mm x 33mm</td>
<td>0.47Kg</td>
</tr>
<tr>
<td>B167/34</td>
<td>3 x 4Ah</td>
<td>Nickel Cadmium</td>
<td>In-Line</td>
<td>3 Hours</td>
<td>226mm</td>
<td>36mm</td>
<td>36mm</td>
<td>214mm</td>
<td>0.43Kg</td>
</tr>
<tr>
<td>B168/415</td>
<td>4 x 1.5Ah</td>
<td>Nickel Cadmium</td>
<td>In-Line</td>
<td>1 Hour</td>
<td>209mm</td>
<td>27mm</td>
<td>25mm</td>
<td>197mm</td>
<td>0.20Kg</td>
</tr>
<tr>
<td>B169/4X4</td>
<td>4 x 4Ah</td>
<td>Nickel Cadmium</td>
<td>Plate</td>
<td>3 Hours</td>
<td>130mm</td>
<td>65mm</td>
<td>34mm</td>
<td>40mm x 65mm</td>
<td>0.59Kg</td>
</tr>
<tr>
<td>B702/4X4</td>
<td>4 x 4Ah</td>
<td>Nickel Cadmium</td>
<td>Dual In-Line</td>
<td>3 Hours</td>
<td>123mm</td>
<td>75mm</td>
<td>36mm</td>
<td>108mm</td>
<td>0.58Kg</td>
</tr>
<tr>
<td>B170/44</td>
<td>4 x 4Ah</td>
<td>Nickel Cadmium</td>
<td>In-Line</td>
<td>3 Hours</td>
<td>285mm</td>
<td>36mm</td>
<td>36mm</td>
<td>270mm</td>
<td>0.57Kg</td>
</tr>
<tr>
<td>B171/515</td>
<td>5 x 1.5Ah</td>
<td>Nickel Cadmium</td>
<td>In-Line</td>
<td>1 Hour</td>
<td>251mm</td>
<td>27mm</td>
<td>25mm</td>
<td>239mm</td>
<td>0.25Kg</td>
</tr>
<tr>
<td>B172/5X4</td>
<td>5 x 4Ah</td>
<td>Nickel Cadmium</td>
<td>Plate</td>
<td>3 Hours</td>
<td>163mm</td>
<td>65mm</td>
<td>34mm</td>
<td>40mm x 97mm</td>
<td>0.78Kg</td>
</tr>
<tr>
<td>B173/54</td>
<td>5 x 4Ah</td>
<td>Nickel Cadmium</td>
<td>In-Line</td>
<td>3 Hours</td>
<td>346mm</td>
<td>36mm</td>
<td>36mm</td>
<td>331mm</td>
<td>0.70Kg</td>
</tr>
<tr>
<td>B174/615</td>
<td>6 x 1.5Ah</td>
<td>Nickel Cadmium</td>
<td>In-Line</td>
<td>1 Hour</td>
<td>293mm</td>
<td>27mm</td>
<td>25mm</td>
<td>281mm</td>
<td>0.30Kg</td>
</tr>
<tr>
<td>B176/64</td>
<td>6 x 4Ah</td>
<td>Nickel Cadmium</td>
<td>In-Line</td>
<td>3 Hours</td>
<td>406mm</td>
<td>36mm</td>
<td>36mm</td>
<td>391mm</td>
<td>0.83Kg</td>
</tr>
<tr>
<td>B701/6X4</td>
<td>6 x 4Ah</td>
<td>Nickel Cadmium</td>
<td>Dual In-Line</td>
<td>3 Hours</td>
<td>182mm</td>
<td>75mm</td>
<td>36mm</td>
<td>167mm</td>
<td>0.84Kg</td>
</tr>
<tr>
<td>B878/84</td>
<td>8 x 4Ah</td>
<td>Nickel Cadmium</td>
<td>In-Line</td>
<td>3 Hours</td>
<td>525mm</td>
<td>36mm</td>
<td>36mm</td>
<td>510mm</td>
<td>1.00Kg</td>
</tr>
<tr>
<td>B879/8X4</td>
<td>8 x 4Ah</td>
<td>Nickel Cadmium</td>
<td>Dual In-Line</td>
<td>3 Hours</td>
<td>242mm</td>
<td>75mm</td>
<td>36mm</td>
<td>227mm</td>
<td>1.35Kg</td>
</tr>
<tr>
<td>B177/1015</td>
<td>10 x 1.5Ah</td>
<td>Nickel Cadmium</td>
<td>Dual In-Line</td>
<td>1 Hour</td>
<td>451mm</td>
<td>54mm</td>
<td>25mm</td>
<td>239mm</td>
<td>0.50Kg</td>
</tr>
<tr>
<td>B178/104</td>
<td>10 x 4Ah</td>
<td>Nickel Cadmium</td>
<td>In-Line</td>
<td>3 Hours</td>
<td>648mm</td>
<td>36mm</td>
<td>36mm</td>
<td>633mm</td>
<td>1.40Kg</td>
</tr>
<tr>
<td>B179/10X4</td>
<td>10 x 4Ah</td>
<td>Nickel Cadmium</td>
<td>Dual In-Line</td>
<td>3 Hours</td>
<td>300mm</td>
<td>75mm</td>
<td>36mm</td>
<td>285mm</td>
<td>1.35Kg</td>
</tr>
</tbody>
</table>

### Cells

- 1.5Ah Nickel Cadmium cells are used with 1 hour duration modules/PCB’s.
- 4Ah Nickel Cadmium cells are used with 3 hour duration modules/PCB’s.

### Permitted cell temperature

Minimum 0°C and maximum 54°C to give the specified performance for an expected life of 4 years.

### Battery connections

Batteries are supplied with a non-reversible plug with the exception of in-line versions, which are fitted with tag connections. The appropriate connections are supplied with the batteries.

### Battery fixing

Batteries are supplied with plastic end-caps or metal plates with provision for screw fixings.
Low Voltage Emergency Lighting

Emergency lighting kits to operate 12 volt tungsten halogen lamps in the event of a power failure.

**Features**
- Robust white epoxy coated sheet steel enclosure incorporating a BSI approved charger circuit to maximise battery life.
- Supplied with deep discharge protection as standard, essential for lead acid batteries.
- All batteries within the units are 5 year life valve regulated lead acid.

**Emergency Modes**
- Non-maintained (NM), where lamp is only illuminated when the power fails.
- Maintained (M), where the unit is supplied with an integral transformer and is permanently lit, whether mains healthy or in emergency conditions. Can be switched on and off as if a standard mains light.
- Remote maintained, where a separate transformer is used, ideal for dimming installations or where matching mains operations characteristics are critical.

**Economy Low Voltage Emergency Boxes (Ballast Lumen Factor 20W 6%, 50W 10%)**

<table>
<thead>
<tr>
<th>Cat No.</th>
<th>Mode</th>
<th>Duration 1 Hour</th>
<th>Duration 2 Hours</th>
<th>Duration 3 Hours</th>
<th>Length</th>
<th>Width</th>
<th>Depth</th>
<th>Fixing Centres</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>R931/50</td>
<td>Non-Maintained</td>
<td>2 x 20W</td>
<td>1 x 50W</td>
<td>1 x 50W</td>
<td>250mm</td>
<td>230mm</td>
<td>72mm</td>
<td>187mm</td>
<td>4.0Kg</td>
</tr>
<tr>
<td>R932/50</td>
<td>Maintained with Maintaining Transformer</td>
<td>1 x 50W</td>
<td>1 x 50W</td>
<td>1 x 50W</td>
<td>250mm</td>
<td>230mm</td>
<td>72mm</td>
<td>187mm</td>
<td>5.0Kg</td>
</tr>
<tr>
<td>R942/50</td>
<td>Maintained without Maintaining Transformer</td>
<td>2 x 50W</td>
<td>1 x 50W</td>
<td>1 x 50W</td>
<td>250mm</td>
<td>230mm</td>
<td>72mm</td>
<td>187mm</td>
<td>5.0Kg</td>
</tr>
</tbody>
</table>

**Low Voltage Emergency Boxes (Ballast Lumen Factor 100%)**

<table>
<thead>
<tr>
<th>Cat No.</th>
<th>Mode</th>
<th>Duration 1 Hour</th>
<th>Duration 2 Hours</th>
<th>Duration 3 Hours</th>
<th>Length</th>
<th>Width</th>
<th>Depth</th>
<th>Fixing Centres</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>R939/50</td>
<td>Non-Maintained</td>
<td>1 x 50W</td>
<td>1 x 20W</td>
<td>1 x 20W</td>
<td>250mm</td>
<td>230mm</td>
<td>72mm</td>
<td>187mm</td>
<td>5.2Kg</td>
</tr>
<tr>
<td>R940/50</td>
<td>Maintained with Maintaining Transformer</td>
<td>1 x 50W</td>
<td>1 x 20W</td>
<td>1 x 20W</td>
<td>250mm</td>
<td>230mm</td>
<td>72mm</td>
<td>187mm</td>
<td>6.7Kg</td>
</tr>
<tr>
<td>R943/50</td>
<td>Maintained without Maintaining Transformer</td>
<td>1 x 50W</td>
<td>1 x 20W</td>
<td>1 x 20W</td>
<td>250mm</td>
<td>230mm</td>
<td>72mm</td>
<td>187mm</td>
<td>5.5Kg</td>
</tr>
<tr>
<td>R760/50</td>
<td>Non-Maintained</td>
<td>1 x 50W</td>
<td>1 x 20W</td>
<td>1 x 20W</td>
<td>315mm</td>
<td>270mm</td>
<td>110mm</td>
<td>120mm</td>
<td>5.2Kg</td>
</tr>
<tr>
<td>R759/50</td>
<td>Non-Maintained</td>
<td>2 x 50W</td>
<td>1 x 50W</td>
<td>1 x 50W</td>
<td>315mm</td>
<td>270mm</td>
<td>110mm</td>
<td>120mm</td>
<td>10.7Kg</td>
</tr>
<tr>
<td>R757/50</td>
<td>Maintained without Maintaining Transformer</td>
<td>1 x 50W</td>
<td>2 x 20W</td>
<td>1 x 20W</td>
<td>315mm</td>
<td>270mm</td>
<td>110mm</td>
<td>120mm</td>
<td>6.7Kg</td>
</tr>
<tr>
<td>R758/50</td>
<td>Maintained without Maintaining Transformer</td>
<td>1 x 50W</td>
<td>1 x 50W</td>
<td>1 x 50W</td>
<td>315mm</td>
<td>270mm</td>
<td>110mm</td>
<td>120mm</td>
<td>12.2Kg</td>
</tr>
<tr>
<td>R700/50</td>
<td>Maintained with 2 x 50W Maintaining Transformer</td>
<td>2 x 50W</td>
<td>-</td>
<td>-</td>
<td>315mm</td>
<td>270mm</td>
<td>110mm</td>
<td>120mm</td>
<td>13.5Kg</td>
</tr>
<tr>
<td>R700/100/M3</td>
<td>Maintained with Maintaining Transformer</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>350mm</td>
<td>320mm</td>
<td>110mm</td>
<td>240mm</td>
<td>13.5Kg</td>
</tr>
<tr>
<td>R835/50</td>
<td>Maintained without Maintaining Transformer</td>
<td>1 x 50W</td>
<td>1 x 20W</td>
<td>1 x 20W</td>
<td>315mm</td>
<td>270mm</td>
<td>110mm</td>
<td>120mm</td>
<td>5.2Kg</td>
</tr>
<tr>
<td>R836/50</td>
<td>Maintained without Maintaining Transformer</td>
<td>2 x 50W</td>
<td>1 x 50W</td>
<td>1 x 20W</td>
<td>315mm</td>
<td>270mm</td>
<td>110mm</td>
<td>120mm</td>
<td>10.9Kg</td>
</tr>
</tbody>
</table>

**Features**
- Robust white epoxy coated sheet steel enclosure incorporating a BSI approved charger circuit to maximise battery life.
- Supplied with deep discharge protection as standard, essential for lead acid batteries.
- All batteries within the units are 5 year life valve regulated lead acid.

**Emergency Modes**
- Non-maintained (NM), where lamp is only illuminated when the power fails.
- Maintained (M), where the unit is supplied with an integral transformer and is permanently lit, whether mains healthy or in emergency conditions. Can be switched on and off as if a standard mains light.
- Remote maintained, where a separate transformer is used, ideal for dimming installations or where matching mains operations characteristics are critical.
GU10 LED Emergency Pack

Lighting train to operate GU10 LED luminaires in emergency mode

Features
- Lighting train to operate a wide range of loads up to 9 Watts at 220 Volts dc
- Ideal for use with difficult-to-convert GU10 downlights
- Incorporates battery deep discharge protection and change-over device for operation from a local lighting supply
- Enclosed in silicon coated woven glass fibre sleeving
- Suitable for hole cut-outs of 60mm or above with ceiling voids of 320mm or above
- Gives 3 hours emergency back-up

<table>
<thead>
<tr>
<th>Cat No.</th>
<th>Max Load</th>
<th>Output Voltage</th>
<th>Battery Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLL109W</td>
<td>9W</td>
<td>220V</td>
<td>10 x 4Ah</td>
</tr>
</tbody>
</table>

Emergency Pack Dimensions
Overall Length 930mm

Cut-Out Dimensions
Ø 60mm (320mm minimum ceiling void)

* Please note that the RLL109W is not suitable for use with dimmable control gear

Modules for LED Tubes

Emergency module to convert self ballasted LED tubes to emergency

Features
- Low profile
- 3 hours emergency back-up
- 100% emergency ballast lumen factor
- Suitable for use with self-ballasted 600mm 9 Watt and 1200mm 18 Watt LED tubes
- Deep discharge protection as standard

<table>
<thead>
<tr>
<th>Cat No.</th>
<th>Max Load</th>
<th>Output Voltage</th>
<th>Battery Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>LL109W</td>
<td>9W</td>
<td>220V</td>
<td>10 x 4Ah</td>
</tr>
<tr>
<td>LL1618W</td>
<td>18W</td>
<td>220V</td>
<td>16 x 4Ah</td>
</tr>
</tbody>
</table>

Dimensions
Length 216mm x Width 42mm x Height 28mm
Low Voltage Lighting Train

Low Voltage lighting train for 12 Volt lamps up to 50 Watts

<table>
<thead>
<tr>
<th>Cat No.</th>
<th>Mode</th>
<th>12V Lamp</th>
<th>Duration 1 x 20W</th>
<th>Duration 1 x 50W</th>
<th>Ballast Lumen Factor (50W)</th>
<th>Ballast Lumen Factor (20W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R960/50/NM1</td>
<td>Non-Maintained</td>
<td>20 or 50W</td>
<td>3 Hours</td>
<td>1 Hour</td>
<td>10%</td>
<td>6%</td>
</tr>
<tr>
<td>R960/50/M1</td>
<td>Maintained with Transformer</td>
<td>20 or 50W</td>
<td>3 Hours</td>
<td>1 Hour</td>
<td>10%</td>
<td>6%</td>
</tr>
<tr>
<td>R961/50/M1</td>
<td>Maintained without Transformer</td>
<td>20 or 50W</td>
<td>3 Hours</td>
<td>1 Hour</td>
<td>10%</td>
<td>6%</td>
</tr>
<tr>
<td>R962/50/NM3</td>
<td>Non-Maintained</td>
<td>20 or 50W</td>
<td>3 Hours</td>
<td>3 Hours</td>
<td>10%</td>
<td>6%</td>
</tr>
<tr>
<td>R962/50/M3</td>
<td>Maintained with Transformer</td>
<td>20 or 50W</td>
<td>3 Hours</td>
<td>3 Hours</td>
<td>10%</td>
<td>6%</td>
</tr>
<tr>
<td>R963/50/NM3</td>
<td>Maintained without Transformer</td>
<td>20 or 50W</td>
<td>3 Hours</td>
<td>3 Hours</td>
<td>10%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Features
- Enables 12 Volt tungsten halogen lamps to operate in the event of a power failure
- Can be fed easily through aperture cut-outs of 60mm or above
- Features high quality high temperature Nickel Cadmium battery cells for 1 hour duration and Nickel Metal Hydride cells for 3 hours duration
- Utilises a silicone coated woven glass fibre sleeving to comply with BS/EN60924 and EN60598.2.22

MR16 Lighting Train

Low Voltage lighting train for 12 Volt MR16 LED lamps up to 6 Watts

<table>
<thead>
<tr>
<th>Cat No.</th>
<th>Max Load</th>
<th>Lamp/Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLS012/6/M3</td>
<td>Maintained with Integral Mains Driver</td>
<td>5W/3 Hours</td>
</tr>
</tbody>
</table>

Features
- Enables 12 Volt MR16 LED lamps to operate in the event of a power failure
- Can be fed easily through aperture cut-outs of 60mm or above
- Features high quality high temperature Nickel Cadmium battery cells for 1 hour duration and Nickel Metal Hydride cells for 3 hours duration
- Utilises a silicone coated woven glass fibre sleeving to comply with EN61347.2.13 and EN60598.2.22
- Supplied as standard in maintained mode but can be used as non-maintained
- Features an integral driver which operates the lamp in mains healthy and in the event of a power failure
Central System Inverters & LED Drivers

We produce a range of inverter units suitable for operating fluorescent lamps from low voltage AC or DC supplies, including central battery systems of 24 Volts, 50 Volts and 110 Volts and fluorescent lamps from 4 Watts to 100 Watts.

All PV fluorescent lamp version inverters incorporate our PERFERM™ technology to ensure good lamp life and correct operation with low mercury fluorescent lamps and sine-wave output to prolong lamp cathode life and prevent unpleasant visual lamp effects.

They are designed to comply with the European product standards EN50172, EN55015, EN 61547 and EN 61000.3.2 and are produced in our UK manufacturing plant which is registered to BS EN ISO9001:2000 by BSI.

Two types of operation are normally encountered in low voltage systems being:

1. Slave inverters - where the lamp is operated only from the inverter unit.
   Typical of this type of use is vehicles where there is no mains supply or an emergency lighting system that is separate to the normal lighting luminaires. An example of a slave inverter of this type is our PV289.

2. Inverter units with an AC hold-off relay are used to convert normal mains luminaires to emergency luminaires by switching the lamp from the normal mains control gear to the inverter output when the un-switched monitored mains supply fails. An example of this type of inverter unit is our PVR110.

To compliment our low Voltage inverter range, we now produce a range of LED drivers suitable for use on low Voltage 24V, 50V and 110V AC/DC systems.

All LED drivers are suitable for a wide range of LED loads, ranging from 3V to 38V DC, single source or parallel arrays. Supplied as standard with a 240V AC hold-off relay, allowing the mains luminaire to be converted to emergency by switching the LED from the mains control gear to the low Voltage output when the un-switched mains supply fails.

Technical details for inverters

- Inverters are designed to conform to EN60924/60925. They are EMC compliant and carry the CE mark.
- Output circuitry uses a high efficiency sinusoidal inverter.
- Operating temperature range Inverter 0 to 70°C (centre side of case).
- DC Inverter Supply Range Nominal Supply - 16% + 25%
- AC/DC Inverter Supply Range Nominal Supply - 16% + 25% DC supply +/- 10% AC supply
- LED drivers are designed to conform to EN61347 - 2 - 13

<table>
<thead>
<tr>
<th>Sizes</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lamps up to 20W</td>
<td>154</td>
<td>42</td>
<td>35</td>
<td>144</td>
<td>138</td>
<td>0.25</td>
</tr>
<tr>
<td>Inverters with relay</td>
<td>216</td>
<td>42</td>
<td>28</td>
<td>206</td>
<td>200</td>
<td>0.35</td>
</tr>
<tr>
<td>Open PCB versions</td>
<td>131</td>
<td>40</td>
<td>114</td>
<td>31</td>
<td>-</td>
<td>-</td>
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<tr>
<td>LED version</td>
<td>216</td>
<td>42</td>
<td>28</td>
<td>206</td>
<td>200</td>
<td>0.35</td>
</tr>
</tbody>
</table>

Inverter Dimensions (millimetres)

![Inverter Dimensions Diagram]

Dimensions

![Dimensions Diagram]
## Technical Specification

### Inverters for Fluorescent and LED Lamps

<table>
<thead>
<tr>
<th>Canned Unit</th>
<th>PCB Version</th>
<th>Power Input AC DC</th>
<th>Output BLF</th>
<th>Power Input AC DC</th>
<th>Output BLF</th>
<th>Power Input AC DC</th>
<th>Output BLF</th>
</tr>
</thead>
<tbody>
<tr>
<td>PV288</td>
<td>19288</td>
<td>4W (150mm)</td>
<td>11VA 4.3W 0.44 0.36</td>
<td>14VA 3.96W 0.56 0.34</td>
<td>15VA 4.6W 0.50 0.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PV289</td>
<td>19289</td>
<td>5W TC-S</td>
<td>12VA 4.7W 0.68 0.40</td>
<td>14VA 4.73W 0.46 0.34</td>
<td>1VA 5.2W 0.65 0.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PV290</td>
<td>19290</td>
<td>6W (225mm)</td>
<td>13VA 5.0W 0.56 0.41</td>
<td>16VA 5.2W 0.58 0.53</td>
<td>17VA 5.6W 0.85 0.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>7W TC-S</td>
<td>13VA 5.5W 0.39 0.38</td>
<td>16VA 5.2W 0.44 0.40</td>
<td>18VA 5.9W 0.62 0.49</td>
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<tr>
<td></td>
<td></td>
<td>8W (300mm)</td>
<td>15VA 6.3W 0.60 0.47</td>
<td>18VA 6.3W 0.80 0.60</td>
<td>20VA 6.9W 0.70 0.57</td>
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<table>
<thead>
<tr>
<th>Canned Unit</th>
<th>PCB Version</th>
<th>Power Input AC DC</th>
<th>Output BLF</th>
<th>Power Input AC DC</th>
<th>Output BLF</th>
<th>Power Input AC DC</th>
<th>Output BLF</th>
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<tbody>
<tr>
<td>PV190</td>
<td>19720</td>
<td>9W TC-S</td>
<td>20VA 11W 0.60 0.40</td>
<td>23VA 11W 0.54 0.45</td>
<td>26VA 9W 0.51 0.42</td>
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<td>PV191</td>
<td>19721</td>
<td>11W TC-S</td>
<td>22VA 13W 0.40 0.31</td>
<td>29VA 14W 0.49 0.41</td>
<td>32VA 11W 0.49 0.41</td>
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<tr>
<td>PV192</td>
<td>19722</td>
<td>13W TC-D, TC-T</td>
<td>21VA 13W 0.51 0.41</td>
<td>30VA 15W 0.54 0.44</td>
<td>317VA 11W 0.61 0.48</td>
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<td></td>
<td>16W 2D</td>
<td>22VA 16W 0.42 0.32</td>
<td>32VA 16W 0.49 0.38</td>
<td>33VA 12W 0.49 0.35</td>
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<td>14W T5</td>
<td>22VA 15W 0.50 0.45</td>
<td>31VA 16W 0.50 0.41</td>
<td>35VA 13W 0.49 0.39</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>18W TC-D, TC-L</td>
<td>20VA 13W 0.49 0.40</td>
<td>28VA 14W 0.37 0.31</td>
<td>32VA 12W 0.41 0.37</td>
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<tr>
<td></td>
<td></td>
<td>18/20W T8</td>
<td>21VA 14W 0.29 0.19</td>
<td>33VA 17W 0.35 0.29</td>
<td>35VA 13W 0.27 0.21</td>
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### Technical Specification for LED Lamps

<table>
<thead>
<tr>
<th>Cat No.</th>
<th>Max Constant LED Current</th>
<th>Min Voltage</th>
<th>Drivers Output</th>
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<tbody>
<tr>
<td>LVR24/LED</td>
<td>170mA</td>
<td>3V</td>
<td>38V</td>
</tr>
<tr>
<td>LVR50/LED</td>
<td>170mA</td>
<td>3V</td>
<td>38V</td>
</tr>
<tr>
<td>LVR110/LED</td>
<td>170mA</td>
<td>3V</td>
<td>38V</td>
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LED versions incorporate AC hold-off relay.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AC  DC</td>
<td>AC  DC</td>
<td>AC  DC</td>
</tr>
<tr>
<td>7W TC-S</td>
<td>0.38 0.28</td>
<td>0.47 0.35</td>
<td>0.53 0.40</td>
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<tr>
<td>8W T5</td>
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<td>0.60 0.45</td>
<td>0.57 0.43</td>
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<tr>
<td>9W TC-S</td>
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<td>0.58 0.48</td>
<td>0.58 0.46</td>
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<tr>
<td>11W TC-S</td>
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<td>0.55 0.43</td>
<td>0.61 0.49</td>
</tr>
<tr>
<td>13W T5</td>
<td>0.62 0.48</td>
<td>0.64 0.50</td>
<td>0.58 0.46</td>
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<tr>
<td>14W T5</td>
<td>0.36 0.27</td>
<td>0.50 0.36</td>
<td>0.42 0.33</td>
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<tr>
<td>16W 2D</td>
<td>0.45 0.38</td>
<td>0.60 0.46</td>
<td>0.56 0.44</td>
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<tr>
<td>18W/20W T8</td>
<td>0.20 0.14</td>
<td>0.24 0.20</td>
<td>0.24 0.18</td>
</tr>
<tr>
<td>21W T5</td>
<td>0.32 0.24</td>
<td>0.44 0.34</td>
<td>0.40 0.32</td>
</tr>
<tr>
<td>22W T5 Circular</td>
<td>0.28 0.25</td>
<td>0.40 0.33</td>
<td>0.38 0.30</td>
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<tr>
<td>24W TC-L</td>
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<td>0.40 0.25</td>
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<td>26W TC-D</td>
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<td>0.30 0.25</td>
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<tr>
<td>28W 2D T5</td>
<td>0.24 0.19</td>
<td>0.36 0.27</td>
<td>0.33 0.24</td>
</tr>
<tr>
<td>28W T5</td>
<td>0.31 0.23</td>
<td>0.46 0.35</td>
<td>0.42 0.35</td>
</tr>
<tr>
<td>32W TC-T</td>
<td>0.37 0.28</td>
<td>0.51 0.40</td>
<td>0.49 0.38</td>
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<tr>
<td>35W T5</td>
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<td>0.45 0.33</td>
<td>0.41 0.34</td>
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<tr>
<td>36W TC-L</td>
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<tr>
<td>36W T8</td>
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<td>0.22 0.18</td>
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<td>38W 2D T5</td>
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<td>0.24 0.19</td>
<td>0.23 0.17</td>
</tr>
<tr>
<td>39W T5</td>
<td>0.15 0.12</td>
<td>0.24 0.18</td>
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<tr>
<td>40W TC-L</td>
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<td>0.43 0.34</td>
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<tr>
<td>40W T8</td>
<td>0.29 0.21</td>
<td>0.39 0.28</td>
<td>0.36 0.28</td>
</tr>
<tr>
<td>42W TC-T</td>
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<td>0.39 0.24</td>
<td>0.36 0.24</td>
</tr>
<tr>
<td>49W T5</td>
<td>0.29 0.22</td>
<td>0.44 0.28</td>
<td>0.33 0.26</td>
</tr>
<tr>
<td>54W T5</td>
<td>0.18 0.14</td>
<td>0.26 0.20</td>
<td>0.24 0.20</td>
</tr>
<tr>
<td>55W T5 Circular</td>
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<td>0.39 0.29</td>
<td>0.33 0.27</td>
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<tr>
<td>55W 2D</td>
<td>0.17 0.13</td>
<td>0.26 0.19</td>
<td>0.30 0.25</td>
</tr>
<tr>
<td>55W T5 Circular</td>
<td>0.22 0.18</td>
<td>0.31 0.24</td>
<td>0.29 0.21</td>
</tr>
<tr>
<td>80W T5</td>
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<td>0.10 0.08</td>
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<td>100W T12</td>
<td>0.09 0.06</td>
<td>0.15 0.10</td>
<td>0.13 0.11</td>
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</tbody>
</table>
Orbik manufacture a comprehensive range of BSI approved emergency control gear within their ISO9001: 2008 approved factory in the UK.

One of the many added-value services ORBIK offer to their customers is the re-engineering of third party mains only luminaires into emergency versions. This operation is carried out and tested by highly skilled personnel working within a ISO9001:2000 quality environment and registered to ICEL and approved to its ICEL 1004 Luminaire re-engineering scheme.

Facilities on site include testing for thermal endurance and EMC compliance for re-engineered luminaires so that customers can be confident that these luminaires remain compliant with European product safety and performance standards and comply with the CE regulations.

Orbiks BSI approved emergency control gear ensures the highest quality products are used to convert free issued luminaires with a choice of integral or remote solutions for most 4 pin fluorescent lamps, 12V halogen dichroic lamps and LED’s.

With reduced mercury lamps being standardised on by most leading lamp manufacturers, Orbiks BSI approved Perform emergency modules are specified for these lamp types as their in-house design ensures reliable striking of the latest generation of 4 pin compact and linear fluorescent lamps.
Central Systems.

A wide range of central battery and static inverter emergency lighting systems to suit even the most demanding lighting schemes.
Low Power CBU’s

A range of 24 Volt AC/DC Central Battery Units for smaller applications

**Features**
- Designed and manufactured to in accordance with the requirements of EN50171
- Easy maintenance, monitoring, control and battery replacement when necessary
- Supplied with 5 year life valve regulated lead acid batteries as standard
- Robust, wall mounting steel cabinet with lockable, hinged front door
- Anti-surge fuses to input and charger
- HRC fuses to output
- Low Voltage disconnect
- Volt-free charge fail relay contacts

**Options**
Add suffix to catalogue number:
- /AV Analogue Ammeter/Voltmeter
- /DM Digital Ammeter/Voltmeter
- /EF Earth fault monitor
- /ET Engineers test key
- /FA Fire alarm relay
- /HL High/low Volts monitor
- /MI MCB on mains input (single pole)
- /MM MCB on maintained circuit (single pole)
- /MR Maintained control relay
- /NW Night watchman’s switch
- /PF Phase failure relay
- /TS Solar dial time switch
- /RA Remote alarm unit
- /SR Sub-circuit relay

**Specification**

**Enclosure**
Sheet steel cabinet finished in grey RAL-7032 with lockable, hinged front door and top gland plate

**Batteries**
5 year nominal valve regulated lead acid battery

**Voltage**
230 Volts 50Hz single phase input; 24 Volts output

**Charger**
Constant Voltage temperature compensated

**Indicators**
Mains healthy neon and charge fail LED

**Alarms**
Volt-free charge fail relay contacts

**Protection**
Anti-surge fuses to input and charger, HRC fuses to output and low Voltage disconnect

**Dimensions**

**Size A**
Height 500mm x Width 400mm x Depth 200mm

**Size B**
Height 600mm x Width 500mm x Depth 250mm

**Size C**
Height 700mm x Width 500mm x Depth 250mm

**Size D**
Height 800mm x Width 600mm x Depth 250mm

**Technical Support**
For any enquiries relating to central battery units, please contact our technical department who will be able to offer advice and expertise on your application.

---

**Catalogue Numbers**

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Mode</th>
<th>Watts</th>
<th>Volts</th>
<th>Duration</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>24/15/NM3/86/S</td>
<td>NM3</td>
<td>86W</td>
<td>24V</td>
<td>3 hours</td>
<td>A</td>
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<tr>
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<td>M3</td>
<td>86W</td>
<td>24V</td>
<td>3 hours</td>
<td>A</td>
</tr>
<tr>
<td>24/24/NM3/138/S</td>
<td>NM3</td>
<td>138W</td>
<td>24V</td>
<td>3 hours</td>
<td>B</td>
</tr>
<tr>
<td>24/24/M3/138/S</td>
<td>M3</td>
<td>138W</td>
<td>24V</td>
<td>3 hours</td>
<td>B</td>
</tr>
<tr>
<td>38/24/NM3/218/S</td>
<td>NM3</td>
<td>218W</td>
<td>24V</td>
<td>3 hours</td>
<td>B</td>
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<tr>
<td>38/24/M3/218/S</td>
<td>M3</td>
<td>218W</td>
<td>24V</td>
<td>3 hours</td>
<td>B</td>
</tr>
<tr>
<td>48/24/NM3/275/S</td>
<td>NM3</td>
<td>275W</td>
<td>24V</td>
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<td>C</td>
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<td>48/24/M3/275/S</td>
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<td>275W</td>
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<td>65/24/NM3/373/S</td>
<td>NM3</td>
<td>373W</td>
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<td>65/24/M3/373/S</td>
<td>M3</td>
<td>373W</td>
<td>24V</td>
<td>3 hours</td>
<td>D</td>
</tr>
</tbody>
</table>
High Power CBU’s

Floor standing high power Central Battery Units

Features
- Designed and manufactured to in accordance with the requirements of EN50171
- Easy maintenance, Monitoring, control and battery replacement when necessary
- Supplied with 10 year life valve regulated lead acid batteries as standard
- Lockable, lift-off covers for easy installation and maintenance
- Separate battery and gear compartments
- Dual output for system flexibility
- Recessed instrument panel
- Flexible manufacturing facility allows maximum customer specific options

Options
Add suffix to catalogue number:
/DM Digital Ammeter/Voltmeter
/EF Earth fault monitor
/ET Engineers test key
/FA Fire alarm relay
/HL High/low Volts monitor
/MI MCB on mains input (single pole)
/MM MCB on maintained circuit (single pole)
/MR Maintained control relay
/NW Night watchman’s switch
/PH Phase failure relay
/TS Solar dial time switch
/RA Remote alarm unit
/SR Sub-circuit relay

Specification

Enclosure
Sheet steel cabinet finished in grey RAL-7032 with lockable, lift-off cover

Batteries
10 year nominal valve regulated lead acid battery. The battery Voltage at the end of a rated discharge shall not be less than 85% of the nominal system Voltage as defined in BS5266

Voltage
230 Volts 50Hz single phase or 415 Volts 50Hz 3 phase input; 24 Volts, 50 Volts or 110 Volts output

Charger
Thyristor controlled constant Voltage type with electronic current limit and optional boost facility. Protected against short circuit, low battery Voltage and reverse battery connection

Indicators
Mains healthy neon, charge Ammeter, battery Voltmeter and charge fail LED

Recharge Time
Chargers rated to give 90% recharge within 12 hours and full recharge within 24 hours

Transformers
Double wound with earth screen

Dimensions

Size 1
Height 1000mm x Width 600mm x Depth 440mm

Size 2
Height 1250mm x Width 800mm x Depth 540mm

Size 3
Height 1250mm x Width 1000mm x Depth 640mm

Size 4
Height 1250mm x Width 1050mm x Depth 700mm

Catalogue Numbers

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Watts</th>
<th>Volts</th>
<th>Duration</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>24/#3/420/AV/LV/S</td>
<td>420W</td>
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<td>545W</td>
<td>24V</td>
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<td>24/#3/635/AV/LV/S</td>
<td>635W</td>
<td>24V</td>
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<td>24/#3/780/AV/LV/S</td>
<td>780W</td>
<td>24V</td>
<td>3 hours</td>
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<td>50/#3/270/AV/LV/S</td>
<td>270W</td>
<td>50V</td>
<td>3 hours</td>
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<tr>
<td>50/#3/380/AV/LV/S</td>
<td>380W</td>
<td>50V</td>
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<tr>
<td>50/#3/600/AV/LV/S</td>
<td>600W</td>
<td>50V</td>
<td>3 hours</td>
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<td>50/#3/840/AV/LV/S</td>
<td>840W</td>
<td>50V</td>
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<td>50/#3/1090/AV/LV/S</td>
<td>1090W</td>
<td>50V</td>
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<td>50/#3/1270/AV/LV/S</td>
<td>1270W</td>
<td>50V</td>
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<tr>
<td>50/#3/1560/AV/LV/S</td>
<td>1560W</td>
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<td>50V</td>
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<tr>
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<td>610W</td>
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<tr>
<td>110/#3/1350/AV/LV/S</td>
<td>1350W</td>
<td>110V</td>
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<tr>
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<td>110V</td>
<td>3 hours</td>
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<tr>
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<td>2450W</td>
<td>110V</td>
<td>3 hours</td>
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<tr>
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<td>2850W</td>
<td>110V</td>
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<td>3500W</td>
<td>110V</td>
<td>3 hours</td>
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</tr>
</tbody>
</table>

Replace # with NM3 for non-maintained mode or M3 for maintained mode
Static Inverter Systems

A comprehensive range of static inverter systems to meet BS EN50171

Features
- Designed and manufactured to the latest European EN50171 specification
- Capable of 120% continuous overload to meet European emergency lighting regulations
- LCD panel providing accurate detailed information about load, batteries and inverter with advanced diagnostics
- Inverter stage output galvanic isolation transformer
- Up to 91% efficiency
- Large charger for faster recharge of batteries
- Unique inverter design to suit high inrush lighting loads
- RS232 and dry contacts for communication and remote monitoring
- Maintenance bypass for complete isolation of the inverter during maintenance

Catalogue Numbers (LPAC Range)

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Phase Input/Output</th>
<th>VA Output</th>
<th>Watts Output</th>
<th>Duration</th>
<th>Cabinet Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPAC10/3</td>
<td>Single Phase</td>
<td>150VA</td>
<td>120W</td>
<td>3 hours</td>
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<tr>
<td>LPAC20/3</td>
<td>Single Phase</td>
<td>300VA</td>
<td>240W</td>
<td>3 hours</td>
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</tr>
<tr>
<td>LPAC30/3</td>
<td>Single Phase</td>
<td>450VA</td>
<td>360W</td>
<td>3 hours</td>
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</tr>
<tr>
<td>LPAC40/3</td>
<td>Single Phase</td>
<td>600VA</td>
<td>480W</td>
<td>3 hours</td>
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<tr>
<td>LPAC50/3</td>
<td>Single Phase</td>
<td>750VA</td>
<td>600W</td>
<td>3 hours</td>
<td>2</td>
</tr>
<tr>
<td>LPAC60/3</td>
<td>Single Phase</td>
<td>950VA</td>
<td>750W</td>
<td>3 hours</td>
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<tr>
<td>LPAC80/3</td>
<td>Single Phase</td>
<td>1250VA</td>
<td>1000W</td>
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<td>1200W</td>
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Catalogue Numbers (HPAC Range)

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Phase Input/Output</th>
<th>VA Output</th>
<th>Watts Output</th>
<th>Duration</th>
<th>Cabinet Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPAC2.0/1/1/3</td>
<td>Single Phase</td>
<td>2000VA</td>
<td>1600W</td>
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<td>HPAC2.5/1/1/3</td>
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<td>2500VA</td>
<td>2000W</td>
<td>3 hours</td>
<td>3</td>
</tr>
<tr>
<td>HPAC3.2/1/1/3</td>
<td>Single Phase</td>
<td>3200VA</td>
<td>2400W</td>
<td>3 hours</td>
<td>4</td>
</tr>
<tr>
<td>HPAC4.8/1/1/3</td>
<td>Single Phase</td>
<td>4800VA</td>
<td>3200W</td>
<td>3 hours</td>
<td>5</td>
</tr>
<tr>
<td>HPAC6/1/1/3</td>
<td>Single Phase</td>
<td>5600VA</td>
<td>4200W</td>
<td>3 hours</td>
<td>6</td>
</tr>
<tr>
<td>HPAC6.0/1/1/3</td>
<td>Single Phase</td>
<td>6000VA</td>
<td>4800W</td>
<td>3 hours</td>
<td>7</td>
</tr>
<tr>
<td>HPAC8/0/1/1/3</td>
<td>Single Phase</td>
<td>8000VA</td>
<td>6400W</td>
<td>3 hours</td>
<td>8</td>
</tr>
<tr>
<td>HPAC10/1/1/3</td>
<td>Single Phase</td>
<td>10000VA</td>
<td>8000W</td>
<td>3 hours</td>
<td>9</td>
</tr>
<tr>
<td>HPAC12/1/1/3</td>
<td>Single Phase</td>
<td>12000VA</td>
<td>9600W</td>
<td>3 hours</td>
<td>10</td>
</tr>
<tr>
<td>HPAC14/1/1/3</td>
<td>Single Phase</td>
<td>14000VA</td>
<td>11900W</td>
<td>3 hours</td>
<td>TBC</td>
</tr>
<tr>
<td>HPAC16/1/1/3</td>
<td>Single Phase</td>
<td>16000VA</td>
<td>13600W</td>
<td>3 hours</td>
<td>TBC</td>
</tr>
<tr>
<td>HPAC20/1/1/3</td>
<td>Single Phase</td>
<td>20000VA</td>
<td>16000W</td>
<td>3 hours</td>
<td>TBC</td>
</tr>
<tr>
<td>HPAC10/3/3/3</td>
<td>Three Phase</td>
<td>10000VA</td>
<td>8000W</td>
<td>3 hours</td>
<td>9</td>
</tr>
<tr>
<td>HPAC15/3/3/3</td>
<td>Three Phase</td>
<td>15000VA</td>
<td>12000W</td>
<td>3 hours</td>
<td>10</td>
</tr>
<tr>
<td>HPAC20/3/3/3</td>
<td>Three Phase</td>
<td>20000VA</td>
<td>16000W</td>
<td>3 hours</td>
<td>11</td>
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<tr>
<td>HPAC30/3/3/3</td>
<td>Three Phase</td>
<td>30000VA</td>
<td>24000W</td>
<td>3 hours</td>
<td>12</td>
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<tr>
<td>HPAC40/3/3/3</td>
<td>Three Phase</td>
<td>40000VA</td>
<td>32000W</td>
<td>3 hours</td>
<td>13</td>
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<tr>
<td>HPAC50/3/3/3</td>
<td>Three Phase</td>
<td>50000VA</td>
<td>42500W</td>
<td>3 hours</td>
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</tr>
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<td>HPAC60/3/3/3</td>
<td>Three Phase</td>
<td>60000VA</td>
<td>48000W</td>
<td>3 hours</td>
<td>15</td>
</tr>
<tr>
<td>HPAC80/3/3/3</td>
<td>Three Phase</td>
<td>80000VA</td>
<td>64000W</td>
<td>3 hours</td>
<td>TBC</td>
</tr>
<tr>
<td>HPAC100/3/3/3</td>
<td>Three Phase</td>
<td>100000VA</td>
<td>80000W</td>
<td>3 hours</td>
<td>TBC</td>
</tr>
<tr>
<td>HPAC120/3/3/3</td>
<td>Three Phase</td>
<td>120000VA</td>
<td>96000W</td>
<td>3 hours</td>
<td>TBC</td>
</tr>
</tbody>
</table>

For 1 hour versions replace 3 at the end of each catalogue number with 1, e.g. LPAC10/3 becomes LPAC10/1

Specification

Enclosure
Sheet steel cabinet with lockable, hinged front door

Batteries
Maintenance-free valve regulated lead acid battery

Voltage
230Vac single phase or 400Vac three phase

Battery Test
Weekly automatic battery test

Short Circuit Protection
Electronic short circuit protection

Ambient Operating Temperature
0°C to 40°C

Dimensions

Size 1: Height 850mm x Width 750mm x Depth 250mm
Size 2: Height 1250mm x Width 750mm x Depth 250mm
Size 3: Height 1250mm x Width 750mm x Depth 400mm
Size 4: Height 1200mm x Width 1140mm x Depth 755mm
Size 5: Height 1220mm x Width 1010mm x Depth 855mm
Size 6: Height 1220mm x Width 1010mm x Depth 725mm
Size 7: Height 1220mm x Width 1660mm x Depth 855mm
Size 8: Height 1220mm x Width 2040mm x Depth 725mm
Size 9: Height 1701mm x Width 2160mm x Depth 855mm
Size 10: Height 1180mm x Width 2000mm x Depth 855mm
Size 11: Height 1287mm x Width 1790mm x Depth 780mm
Size 12: Height 1752mm x Width 2630mm x Depth 1055mm
Size 13: Height 2652mm x Width 2640mm x Depth 1055mm
Size 14: Height 1809mm x Width 3760mm x Depth 880mm
Size 15: Height 1752mm x Width 2830mm x Depth 1055mm
Mini-Sine

Mini static inverter unit for loads up to 150 Watts

Features
- Designed to operate loads up to 150 Watts at 230 Volts
- Available in either 1 hour or 3 hours emergency duration
- Charger features short circuit and battery reversal protection
- Thermal shutdown protected
- Additional cooling for the charger during early charging stages provided by a quiet chassis mounted fan
- Sine wave inverter includes over temperature and short circuit protection and is suitable for operation in an ambient of up to 30°C
- Front panel indicators display healthy supply, power failure, battery disconnect/charger failure and over charge indicator
- High quality robust steel enclosure
- Ideal for use with GU10 and discharge lighting schemes

Catalogue Numbers

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Description</th>
<th>Weight*</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS150/1</td>
<td>150W 1 hour static inverter unit</td>
<td>21Kg</td>
</tr>
<tr>
<td>MS150/3</td>
<td>150W 3 hours static inverter unit</td>
<td>30Kg</td>
</tr>
</tbody>
</table>

* Unit weight includes batteries (1 hour version 2 x 12V 12Ah; 3 hours version 2 x 12V 25Ah VRLA).

Dimensions
Length 375mm x Width 440mm x Depth 160mm

Change-Over Relay

Change-over and sub-circuit monitor relay for use with static inverter operated systems

Features
- Can be used with either maintained or non-maintained luminaires powered from a static inverter.
- Provides local sub-circuit monitoring to comply with EN50171, the European Standard for centrally supplied emergency systems
- The DRM415AC is available with a number of options such as a steel remote housing and addressable versions
- The DRM415AC can be factory fitted in many 'free-issued' luminaires
- For non-maintained operation, the static inverter supply is connected to the DRM415AC together with the local lighting circuits' unswitched supply
- For maintained operation, the switched supply is also connected to the DRM415AC allowing the luminaire to be switched on and off as though it were a normal mains luminaire
- In the event of the unswitched supply failing, the relay changes over and the luminaire is operated by the static inverter

Catalogue Numbers

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Description</th>
<th>Weight*</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRM415AC</td>
<td>1250VA static inverter change-over relay</td>
<td>0.3Kg</td>
</tr>
</tbody>
</table>

Dimensions
Length 203mm x Width 42mm x Depth 28mm
Fixing Centres
193mm along centre line
Intelligent Emergency Lighting Systems.

Intelligent emergency lighting systems providing high quality products and peace of mind.
Performance
DST™ standard testing programme conforms to the requirements of BS5266-1
Monthly
1 minute, functional test
6 Monthly
1 minute, duration test
Annually
3 hour, full rated duration test
DST™ LED status reports are made via a single tri-colour LED
Continuous green LED
Mains, battery, charger and previous test correct
Continuous red LED
Test in progress
Flashing amber LED (with optional sound alarm)*
Test fail alarm
Unit LED
Mains failure or faulty battery
* If a fault is detected the sounder will enter a cycle where it emits an optional audible alarm and sound every 10 seconds until 4 hours have elapsed. If during this time the test is not reinitiated or the DST is not reset, the alarm cycle will be repeated. A single bleep will only be emitted during manually initiated tests.

Catalogue Numbers

<table>
<thead>
<tr>
<th>Catalogue Number</th>
<th>Lamp &amp; Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>DST-2CELL</td>
<td>Suitable for all modules using 2 cell batteries</td>
</tr>
<tr>
<td>DST-3CELL</td>
<td>Suitable for all modules using 3 cell batteries</td>
</tr>
<tr>
<td>DST-4CELL</td>
<td>Suitable for all modules using 4 cell batteries</td>
</tr>
<tr>
<td>DST-5CELL</td>
<td>Suitable for all modules using 5 cell batteries</td>
</tr>
<tr>
<td>DST-6CELL</td>
<td>Suitable for all modules using 6 cell batteries</td>
</tr>
<tr>
<td>DST-8CELL</td>
<td>Suitable for all modules using 8 cell batteries</td>
</tr>
<tr>
<td>DST-10CELL</td>
<td>Suitable for all modules using 10 cell batteries</td>
</tr>
<tr>
<td>DST-12V</td>
<td>Suitable for tungsten lamps using 12V VRLA batteries</td>
</tr>
</tbody>
</table>

Features
- Fully automatic
- Complies with the requirements of BS5266 and IEC62034
- Suitable for use with most nickel cadmium, nickel metal hydride and valve regulated lead acid self-contained emergency luminaires
- Carries out the thorough monthly, 6 monthly and annual tests contained within BS5266 without the need for manual intervention
- Provides both a visual and audible alarm indication when a fault is detected
- Audible alarm can be disabled if required
- Non-volatile memory ensures the clock is suspended during a power failure but the test sequence will remain unaltered. When power is restored, DST™ will proceed from the point at which the power failed
- On power-up, the DST™ enters a battery pre-conditioning mode to ensure batteries are in a suitable condition to supply sufficient power for emergency operation
- Testing, initiation and clock resetting are carried out via a single discrete push button

Dimensions
Length 130mm x Width 50mm x Depth 30mm (Weight 80g)
Fixing Centres
120mm along centre line

Technical Information
Installation
The external test switch requires a 7mm mounting hole and needs to be accessible for initial programming, manual tests and clock resetting.
The monitor LED bezel requires a 6.25mm mounting hole and should always be visible with the luminaire in its installed condition.
The lamp sensor needs to be located adjacent to and pointing at the emergency lamp.

Wiring
The shrouded screw terminal connections to the DST™ unit are suitable for wires up to 1.8mm diameter. Wiring connections between the batteries and the DST™ unit need to be kept as short as possible to reduce Voltage drops.

Commissioning & Testing
24 hours after initial power-up, the DST™ enters a battery pre-conditioning phase. If the battery charge allows less than 5 minutes of emergency operation a fault indication will occur. The test is repeated 24 hours later and if less than 1 hour of emergency operation occurs, a fault indication will be given. 60 hours after initial power up, the DST™ exits the battery-conditioning mode and commences the test regime with a 5 minute monthly test.

At any time a momentary push on the test switch will invoke a 12 second functional test, which is indicated by the monitoring LED changing to red, accompanied by a single bleep from the internal sounder (if enabled).

To reset the internal clock and thus restart the test timing cycle, the test button needs to be pushed and held in for at least 5 seconds. A successful clock reset is indicated by a double bleep from the sounder. Following a clock reset the DST™ unit will re-enter the battery pre-conditioning phase.

DST™ units incorporate a sounder, which can be muted by removing the black shorting link located below the test switch and sensor terminals.

Further technical information is available from our technical department or from www.orbik.co.uk
Addressable Emergency Lighting

Regular testing and maintenance of emergency lighting is essential and is now a legal requirement in many countries. It is possible to carry out testing manually but this can be expensive and time consuming and accurate record keeping can be difficult to arrange. PALS™ is a programmable addressable light system that will automatically test and monitor the emergency lighting system and produce accurate reports of test results and system events. It ensures building owners and occupants are informed promptly of any problems affecting the emergency lighting system.

PALS™ Panel Features

- Each PALS™ panel is fully expandable from 1 to 5 loops using plug-in line drivers
- A maximum of 126 devices can be supported by each line driver card allowing one panel to monitor and test 630 devices. However, 100 devices should be specified to allow for future expansion
- 95 PALS™ can be networked to allow a total system size of 59,650 devices
- A range of interface units allow the system to operate with most types of emergency luminaires including self-contained, central battery and static inverter systems
- User-friendly software with auto-learn device and data loop status for trouble-free setting up, commissioning and fault-finding
- Constant communication with luminaires to prove system integrity
- Reports charger or mains supply failure within 60 seconds of the event
- Carries out weekly, quarterly and annual tests, either fully automatically or to customers own requirements up to a maximum of 500 tests per year
- Full system and luminaires test can be manually activated at any time
- Reports luminaire number, location and nature of fault detected
- On-board power supplies on the panel to maintain system memory in the event of power failure
- Easy to use, tab-style question for programming and operating, on-board alpha numeric keyboard for easy updates and modifications
- Multi-panel networking, PC report and control
- Complies with the requirements of EN62034

Specification

Mains Supply
230V 50Hz AC

Standby
Integral charger for 12V 6Ah valve regulated lead acid battery (battery not supplied)

Auxiliary Relay
1 Volt-free change over output (contacts rated at 5A 250V maximum per relay)

Sensor Circuit
Two-wire addressable loop

Loop Protection
Short circuit protection on-board (without isolators in loop)

Signalling Lines/Devices Per Line
5 plug-in line driver circuits
Up to 126 luminaires per line driver

Controls
Alpha-numeric key pad

Indicators
20 test zone LED’s and audible buzzer

Display
2 line by 40 characters backlit LCD
20 LED zone test indicators
20 LED zone fault indicators
2 LED common fault indicators

Communications
1 x RS485 serial port (OEL-485 plug-in module required)
1 x on-board RS232 port

Recommended Cable
For signalling line circuits Beldon 8762, 8760 or 8719 is recommended

Dimensions
Panel: Length 375mm x Height 375mm x Depth 80mm (Weight 7.8kg excl. batteries)
Interface: Length 130mm x Width 50mm x Depth 30mm (Weight 80g)

PALS™ Self-Contained and Central System Interface Unit Features

OEL-302 monitors and tests for:
- Unswitched mains supply is present at all times
- Battery is connected and charging
- Light output from the lamp in emergency operation (PALS™ monitors the actual lamp light output as current monitoring can be unreliable)
- Data loop integrity at all times

OEL-307 central system interface unit features:
- Light output from the lamp in emergency operation
- Data loop integrity at all times
Catalogue Numbers

<table>
<thead>
<tr>
<th>Cat No</th>
<th>Description</th>
<th>Function/Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>OELCA1</td>
<td>PALS™ control panel</td>
<td>Each panel requires at least 1 x OEL001 driver, with a maximum of 5</td>
</tr>
<tr>
<td>OEL001</td>
<td>PALS™ line driver</td>
<td>To allow for future expansion, specify 100 devices per driver (maximum of 1,260)</td>
</tr>
<tr>
<td>OEL003</td>
<td>9 pin-25 pin D type cable</td>
<td>For serial printer connection</td>
</tr>
<tr>
<td>OEL004</td>
<td>RS232 cable and gland</td>
<td>Internal cable and gland for local printer and RS232 panel communications</td>
</tr>
<tr>
<td>OEL008</td>
<td>PC-Net 001 upload software</td>
<td>To allow easy on-site description and test changes via external computer</td>
</tr>
<tr>
<td>OEL009</td>
<td>PC-Net 002 light logger software</td>
<td>Allows full off-site system monitoring, testing facilities and record keeping</td>
</tr>
<tr>
<td>OEL108</td>
<td>RS232-RS485 converter</td>
<td>Converter for use with local RS232 printers</td>
</tr>
<tr>
<td>OEL302</td>
<td>Lighting interface</td>
<td>One required for each emergency luminaire, monitors charge, mains and light output</td>
</tr>
<tr>
<td>OEL304/20</td>
<td>12V 20W Tungsten interface</td>
<td>Monitors the current in 10W and 20W non-maintained Tungsten luminaires</td>
</tr>
<tr>
<td>OEL304/40</td>
<td>12V 50W Tungsten interface</td>
<td>Monitors the current in 20W and 50W non-maintained Tungsten luminaires</td>
</tr>
<tr>
<td>OEL305</td>
<td>Central system interface</td>
<td>One required for each static inverter or central battery unit</td>
</tr>
<tr>
<td>OEL307</td>
<td>Light sensor interface</td>
<td>Monitors only the lamp light output, one required for each luminaire used on central systems</td>
</tr>
<tr>
<td>OEL485</td>
<td>RS485 network card</td>
<td>One required for each panel for local and modem networking of PALS™ panels</td>
</tr>
<tr>
<td>OEL308</td>
<td>LED lighting interface</td>
<td>Monitors LED current (selectable load up to 1A)</td>
</tr>
<tr>
<td>16-508</td>
<td>12V 7Ah valve regulated lead acid battery</td>
<td>Must be installed in each PALS™ panel to ensure back-up in the event of a power failure (1 battery per panel)</td>
</tr>
</tbody>
</table>

System Schematic/PALS™

**Central Battery or Static Inverter**

**PALS + OEL485**

**Local Computer**

**Local Printer**

**KEY**

- Slave Luminaires
- Self Contained Luminaires
- Data cable <1.5km or 23Ohms
Sheikh Zayed Tunnel, Abu Dhabi.
10. VARIATIONS

(h) The Company shall be entitled to bring an action for the price or part thereof whether or not delivery or deemed delivery has taken place and whether or not the

11. EXCLUSION OF LIABILITY

(a) Each right or remedy of the Company under the contract is without prejudice to any other right or remedy of the Company whether under the contract or not.

12. LIMITATION OF LIABILITY

(a) Subject as expressly provided in these Conditions, and except where the goods are sold to a person dealing as a consumer (within the meaning of the Unfair

13. DEFECTS AND CLAIMS FOR REPAIR OR REPLACEMENT

(a) Each right or remedy of the Company under the contract is without prejudice to any other right or remedy of the Company whether under the contract or not.

14. DECLARATION OF PRICE

(a) In these General Conditions of Sale (the “Conditions”), the “Company” means Orbik Electronics Limited, the “goods” means any item of whatsoever nature which is

15. REJECTION

(a) If at any time any question, dispute or difference whatsoever shall arise between the Purchaser and the Company upon or in relation to or in connection with the

16. RETURN OF GOODS

(a) In the event of the Company’s non-delivery of the goods or if the goods are not delivered in accordance with these Conditions, which shall govern the contract to the exclusion of any other terms and conditions subject to which any such contract or agreement may be

17. INFRACTION OF CONTRACT

(a) Each right or remedy of the Company under the contract is without prejudice to any other right or remedy of the Company whether under the contract or not.

18. PERFORMANCE, INSPECTION AND TESTS

(a) Each right or remedy of the Company under the contract is without prejudice to any other right or remedy of the Company whether under the contract or not.

19. PASSING OF PROPERTY AND RISK

(a) In the event of the Company’s non-delivery of the goods or if the goods are not delivered in accordance with these Conditions, which shall govern the contract to the exclusion of any other terms and conditions subject to which any such contract or agreement may be

20. SUBSEQUENT ALTERATION OR ADDITION

(a) Each right or remedy of the Company under the contract is without prejudice to any other right or remedy of the Company whether under the contract or not.

21. INSOLVENCY OF PURCHASER

(a) Each right or remedy of the Company under the contract is without prejudice to any other right or remedy of the Company whether under the contract or not.

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